DRUG AND COSMETIC INDUSTRY

AUGUST 1937

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The Drug and Cosmetic Industry is published monthly by Drug Markets, Inc., Frazer V. Sinclair, President and Treasurer; Thomas R. Farrell, Vice-president and Secretary. Publication Address, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 101 West 31st St., New York, N. Y.

Subscription price—$2.00 a year, in advance, Foreign Countries, $3.00. Single copies, 25c; Back issues 50c. Entered as Second Class Matter, January 1, 1928, at the Post Office at Pittsfield, Mass., under the Act of March 3, 1879.

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Printed by Sun Printing Co., Pittsfield, Mass.

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NEW DRUG TITLES

WITH the Food and Drug Administration undertaking a campaign to force manufacturers of pharmaceuticals to change the names of their preparations so that all the active ingredients are included in the titles instead of just one or two, a serious question is raised. Enforcement Chief Campbell claims that this policy is in harmony with the law although it has not been done before. We question that any such provision appears in the law. We think, rather, that one will have to study the regulations for enforcement of the Food and Drugs Act to find language suggesting that such a step can be taken.

REGULATIONS for enforcement of a law are not the law and cannot be interpreted as such. The fact that the regulations might read in a manner suggesting such type of enforcement means nothing. For a true opinion of what the law means, one must read the law and nothing else. Bureau officials charged with the enforcement of a law can write all the regulations they want, but they cannot go beyond the letter of the law in enforcing these regulations.

FURTHER than this, we do not see how the Food and Drug Administration is going to force manufacturers to change the U.S.P. and N.F. titles which are at variance with this new ruling. The U.S.P. and N.F. are official standards under the Food and Drugs Act, and a change of the titles in these compendia could and should be considered misbranding. An inspection of these compendia will reveal that several such titles appear in the U.S.P. and that the N.F. is replete with them.

SLIGHT variations of U.S.P. and N.F. preparations, such as are marketed by many pharmaceutical manufacturers, would, under this new ruling, bear titles entirely different from the products which they simulate and therefore these titles would give a physician an entirely different conception of what the products were. Therefore the question of which title constitutes branding which is false and misleading is a moot question. We do not believe that this problem is as simple as Mr. Campbell has been led to believe. We are in sympathy with his desire to have titles that tell the true story, but we think he is biting off something which is pretty hard to chew.

NEW and NON-OFFICIAL

THE FIRST SUPPLEMENT to U.S.P. XI is at last available. Promised for last December, to become effective January 1 of this year, the supplement is now issued to become effective December 1 of this year. Even though it is late and causes one of the annual supplements to be skipped, it is welcome as it will correct a large number of the many errors present in the U.S.P.

But just at the time this is being issued, still other errors in the U.S.P. are causing the industry real trouble. To indicate just two of the products which are now seriously affected by errors in the U.S.P., we will name aloes and gum benzoin. Recently all of these two products offered for import at New York have been rejected by the Food and Drug Administration as not U.S.P.

Our Family Album

Another of those advertising gems used to promote the sale of goods in the nineteenth century. It looks funny, but it probably did the trick in those days.

The aloes have failed to meet the requirements of the U.S.P. because when heated in alcohol a "nearly clear" solution is not obtained. Never mind the difficulty of defining a "nearly clear" solution, because the solution is said to be not even "nearly nearly clear." It is said that there has never been any aloes come into this country that actually met this test which was carried over from U.S.P. X. However, the F.D.A. recently decided to apply this test, with the result that no aloes can be imported. Of course the U.S.P. will eventually be changed, but this serves to indicate how the U.S.P. has been compiled. Probably some college professor who never saw commercial aloes made this test with a nice little piece that had been in his laboratory for some time. He probably brushed if off carefully and got a "nearly clear" solution. Now shipments are held up with resulting delays, hard feelings, and possible suits over nonfulfillment of contracts.

In the case of Gum Benzoin, the monograph states that "Benzoin does not show the presence of *rosin* using xylene as the solvent, page 465." The peculiar part of this is that when xylene is used as the solvent, rosin will be indicated when none is present. The test for rosin on page 465 calls for the use of petroleum ether as the solvent when the substance does not contain free cinnamic or benzoic acid, in which cases xylene must be used. The test was the same in U.S.P. X, but the monograph itself did not state that xylene had to be used—one had to read the general test and then know that gum benzoin contained free benzoic acid. Evidently the F.D.A. and others were using petroleum ether for testing Gum Benzoin for rosin and getting proper results. Now the F.D.A. is using the proper method as directed by the U.S.P. with the result that rosin-free Gum Benzoin is being rejected because it does not meet the U.S.P. test for absence of rosin.

Of course this will now be corrected but think of the time and trouble that these cost honest shippers from abroad, honest importers in this country, and honest manufacturers. We think it about time that the subcommittees of the U.S.P. Revision Committee were forced to go through every monograph under their supervision with a finetooth comb and catch these errors before they become issues.

WE FAIL TO SEE ANY WISDOM in the suggestion that a cooperative movement be undertaken in the trade to fight the Macy agressiveness in merchandising its own brands of drug and cosmetic products. Anybody has the right to conduct his business as he sees fit so long as he is honest and does not disparage competitors or products unduly. We do not see that Macy is dishonest or unduly disparages competitors or their products. We always did object to some of their statements, such as the six per cent. saving through no charge accounts, and we object to their statement that they have price-fixed goods for those who want when they do not carry all price-fixed goods. As an instance of this, we know that Macy does not carry Kotex or Kleenex which one would expect to find in the store when they advertise that they carry price-fixed goods.

However, it is not these things to which we object that is causing the trade to think of reprisals. Rather it is the honest comparisons of products which Macy has been advertising. There is just nothing that can be done about this sort of thing, and if anyone starts anything of the sort, they are quite apt to find that they have only advertised Macy free of charge.

THE FAME OF SULFANILAMIDE continues to reach new heights as still further uses are found for it. Recently, a report from Johns Hopkins University told of its successful use in gangrene caused by the gas baccilus in compound fractures. In desperate cases which would have resulted in death if amputations were not performed, Sulfanilamide cured the patients

without recourse to amputation. Whether the well known "strep" germ is at the basis of this condition is not known, but anyway, Sulfanilamide does the trick.

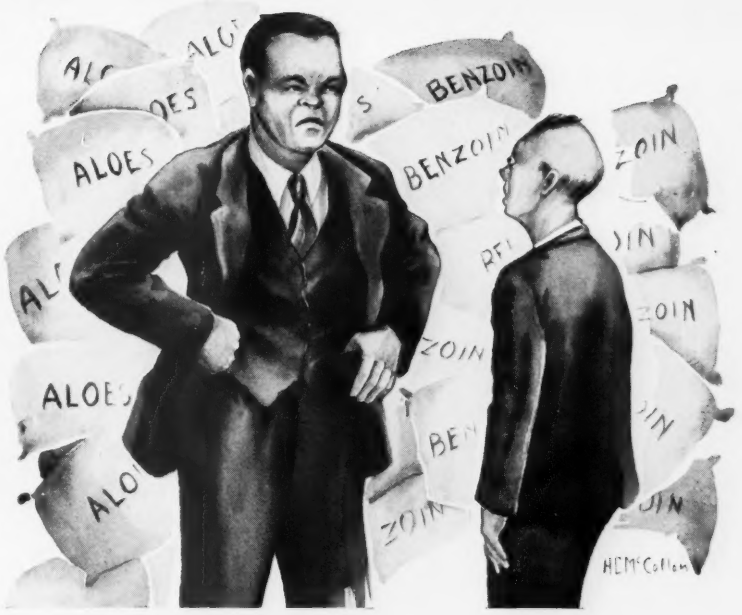
A FRIEND OF OURS in this industry is strong for ethical proprietaries. As a matter of fact, when a doctor comes into this fellow's house he tells the doctor that he does not want any of "those mysterious Latin prescriptions," but he wants something that is put up in packages by a reputable manufacturer. This man does not trust the average drug store to make up a proper prescription and he feels that there are so few things that cannot be bought direct from manufacturers that he does not have to use compounded prescriptions.

We wonder just how far this state of mind goes in this country. Certainly the ordinary individual is sufficiently impressed by the doctor or the druggist not to feel this way or to dare to say anything if he did feel this way. However, it is a sad state of affairs for professional pharmacy when anyone feels this way. As another friend of ours—much interested in professional pharmacy—expressed it, they have merchandised a profession to the point that the profession has largely disappeared and nothing but a lot of good, indifferent, and bad merchandisers are left.

AFTER TAKING THE MONEY in advertising revenues of various cosmetic manufacturers for a number of years, the A.M.A. has finally done a backflip and removed itself from a completely untenable position—leaving these manufacturers who had confidently advertised their "non-allergic" lines in the A.M.A. Journal, out on the well-known limb. In a burst of new-found holiness the A.M.A. has placed rigid restrictions on copy of cosmetic manufacturers seeking the use of its seal of approval. Among these rigid restrictions is an announcement by the committee on advertising of cosmetics and soaps that it is unable to accept any statement to the effect that a cosmetic is non-allergic "because even the simplest preparation may be allergic to a susceptible person."

So the A.M.A. has finally discovered the comparatively elementary fact that everyone else has known for a long time. But in the meantime the A.M.A. has been approving cosmetics for advertising as non-allergic, also there never was any such thing. Now the Great Oom speaks with equal authority and says that there are no non-allergic cosmetics.

The fact of the matter is that somewhere between these two opposite positions taken by the A.M.A. lies the real truth. Certainly those manufacturers who have been trying to make their cosmetics non-allergic have discovered many important facts that have made their cosmetics safer for practically everyone. The effort of manufacturers to seek out those cosmetic ingredients which cause untoward reactions in individuals and then eliminate them from their formulas is something that constitutes a real boon to mankind whether the A.M.A. refuses to shower blessings upon these manufacturers or not. The trouble with trying to work with the A.M.A. is that they see practically nothing in between the two extremes.



"Even if the U. S. P. is wrong, you can't have the goods."

THE HEALTH GUILD OF AMERICA, of which Dr. Joseph Franklin Montague is president, is a layman's organization devoted to public education in health matters. With a widespread membership among laymen interested in better health, this organization should be able to bring the true facts before the public which has nowhere to turn except to more or less biased organizations.

Certainly the A.M.A. with its "Hygeia" will not educate the public in any other interest than of the physician. And because the A.M.A. will not approve of anything except ordinary known remedies, the layman can learn nothing of the real advances in medicine from its pages. The so-called consumer leagues which sell their bulletins to members and on the news stands likewise try to educate the consumer in the simple preparations, trying, in their smartness, to indicate to their readers that any efficacious preparations can be prepared much cheaper at home or can be bought from imitators at much lower prices.

A layman's organization, such as the Health Guild, can fill this gap and can educate members in the right care of health without getting all wound up in an attempt to tear down successful products and thus cheapen the cost. Organizations which either try to cheapen the cost of everything or try to drive people to physicians for every simple ailment do not fill the needs of a large portion of our population. These people are anxious to learn the true facts of health without any side issues. We wish the Health Guild of America much success.

WITH THE MILLER-TYDINGS Bill put through the Senate by the legislative trick of making it a rider on the District of Columbia Tax Bill, this piece of legislation finally came before the President for action. The future looks bright for those who went price maintenance, but in our opinion the industry will suffer from top to bottom because the price level of the industry must rise at the point of consumer sale.

With thirty-nine states having price maintenance bills, the Miller-Tydings Bill will produce a practically air-tight situation throughout the entire country. Also, some of the remaining nine states are bound to follow suit next year.

No longer will there be any excuse for manufacturers not stabilizing prices. Manufacturers will be faced with checking the trade and instigating suits. These suits will constitute good advertising for manufacturers. However, the cost of these suits will probably be too large a percentage of the volume of business of small manufacturers, while for large manufacturers the cost will be insignificant.

THE COMMISSION INTERPRETS

WHILE the first decisions of the Federal Trade Commission in cases brought under the Robinson-Patman Act do not give an interpretation of several problems peculiar to this industry, they do reveal the way in which the Commission has interpreted the act in many important respects. In the first place, the Commission is very definitely of the opinion that functional discounts are in order, and that a manufacturer can classify his customers. This is clear from the decision in the cases involving Montgomery Ward & Company and the two Bird concerns which sold floor coverings to Montgomery Ward. These complaints were dismissed.

The Bird concerns proved to the Commission's satisfaction that they had changed their policy some eighteen months before the act was passed eliminating direct sales to retailers altogether. Now they only sell wholesalers and mail order houses, quoting the same schedule of prices to both these groups. This means that a manufacturer has the right, in the opinion of the Commission, to classify his customers according to functions, and to sell or not sell any class as he pleases. Also he can differentiate in his prices to any particular class of trade as he chooses so long as they are not in competition with one another. The fact that the Bird concerns sold mail order houses at the same price at which it sold wholesalers who in turn had to sell to retailers who must compete with the mail order houses does not seem out of order to the Commission. There is no question that the retailers will have to sell to consumers at higher prices than the mail order houses will sell to consumers, but the fact that the manufacturers in question do not sell any ordinary retailers at all makes quite a difference, according to the Commission's decision.

Following through on such a decision it seems quite likely that a manufacturer could, if he chooses, sell only chain stores and wholesalers, and could sell them at the same prices. This would permit the chain stores to receive the discounts which the independents originally thought the bill was designed to eliminate. All the manufacturer has to do in such instances is not to sell the independent retailers direct. And according to the Commission's decision in this case, the manufacturer has the right to eliminate these retailers completely if he chooses to do so.

An opinion expressed by one manufacturer in the industry was to the effect that the prices did not necessarily have to be the same to the mail order houses and the wholesalers. He was of the opinion that the manufacturers could exercise their own decretion in prices to different classes of trade. However, this point is not definitely covered in the Commission's decisions, although it seems logical.

The fact that discounts in themselves do not tend to create a monopoly and therefore may be used, in the opinion of the Commission, was revealed in the dismissal of the case against the Kraft-Phenix Cheese Corporation. In this case, Kraft-Phenix was using a system of five per cent discounts upon package cheese and salad dressings which were made available to retailers buying more than five dollars worth in a single purchase, or to group buyers who buy more than one hundred dollars worth in a single week and who are billed jointly. The company also grants certain discounts on loaf cheese depending on the quantity purchased at one time.

In this the Commission said that the retail price at which the Kraft products are sold to the consumer depends so much upon the character of the store, the buying power of its customers, the importance of its cheese trade, and the nearness of other competing stores, that there is no basis for concluding that the price of these products is governed by the receipt of the discount. The Commissions concluded that while it has jurisdiction over the pricing policies of the company in its sales to retailers, the price differentials shown by the evidence did not tend to create a monopoly in the Kraft

FEDERAL TRADE COMMISSION

Left to Right: G. S. Ferguson, Jr., Edwin L. Davis, Chas. H. March, R. E. Freer, W. A. Ayres

HARRIS & EWING

company nor tend to lessen or to injure competition between the Kraft company and its competitors. Also the Commission decided that these price differentials did not tend to injure competition among retailers selling cheese products.

From this decision it can be concluded that many factors are being taken into consideration by the Commission other than the mere amounts of the discounts and to whom they are granted. The nature of the products being sold and the state of the industry involved are prime considerations in the formulating the Commission's opinions. Also the character of the retail trade involved is of prime consideration in the Commission's opinion.

From the dismissals of these cases it can be concluded that the questions of demonstrators and P. M.'s are not going to be as cut and dried as was at first thought. The type of retailers sold by cosmetic manufacturers, the discounts given, the demonstrators supplied are things that are related to the question just as was the case in the cheese instance. It appears that the Commission is going to apply the Robinson-Patman in the light of reason and not in a hard and fast manner as many had supposed.

The case of the Biddle Purchasing Company was quite different in character from the other cases. In this instance the Biddle company acted for clients on a fee basis and then passed all brokerages received on to the client who was the buyer of the goods. Since the law plainly prohibits the payment of brokerages to buyers, the Commission decided against the company. The company is appealing the case to the courts, but we now know how the Commission is going to rule in this type of case.

The Commission also decided against the Hollywood Hat Company. In this instance the company was selling hats to a large company at prices so much lower than the prices charged smaller retailers that the Commission decided that the difference could not be accounted for by differences in cost of manufacture, delivery, sale, or any other exception. Therefore, the Commission decided that these prices had the effect of injuring, destroying, or preventing competition between the customers who received and those who were denied the benefit of this discriminatory price.

Another point in the Hollywood Hat Company case was that the Commission ordered the company to stop selling, shipping and invoicing millinery of a grade and quality different from that ordered unless the customer is advised of such difference. This ruling is obvious, even though the company was attempting to meet competition by substituting hats of a cheaper quality on orders for hats of a higher quality.

There does not seem to be any great excitement over the Commission's rulings, most manufacturers feeling that they have very little if anything to fear from the Commission in this industry. Most of the manufacturers have brought their sales policies into line with the basic intention of the Robinson-Patman Act, and now they feel that the Commission will not try to split hairs in interpreting the act. Therefore they feel that once a few problems peculiar to this industry are decided, that very little more will be heard of the act so far as this industry is concerned.

APPROVED BY THE A. M. A.

F.D.A. AND STERILE

THE Food and Drug Administration program for the fiscal year 1938 includes several interesting features. Not the least of these is continuation and broadening of the campaign to insure sterilized bandages, surgical dressings, cotton gauze, compresses, adhesive plaster and surgical sutures and ligatures reaching the public. Also, included in the program is pharmacological work along new and interesting lines, not, however, investigation of the toxic effect upon human beings of spray residue on fruits and vegetables. More of this later on. The program for the year contemplates reduction of F.D.A. expenditures by 10 per cent. under an executive order of President Roosevelt's applying to all government departments and other agencies.

F. D. A. recently called public attention to the fact that the federal court for the Southern District of New York had decided that bandages put out by the Bay Company were drugs within the meaning of the Federal Foods and Drugs Act and were both adulterated and misbranded because they were contaminated with bacteria. The first question asked by many persons in and out of the drug trade and medical profession was, why has F.D. A. required a full generation to obtain enforcement of the law against unsterile bandages, etc. When this question was put up in behalf of DRUG AND COSMETIC INDUSTRY, to F. D. A., prompt reply came from Walter G. Campbell, Chief of the Administration, and J. J. Durrett, Chief of Drug Control. Said Mr. Campbell:

"Some time ago in testifying before a congressional committee on food and drug legislation then pending, I stated that the law should be amended to insure that the definition of a drug should include surgical dressings, bandages, sutures, and the like. I stated on that occasion that it had been held administratively that these products were drugs. There seemed to be no doubt that they are drugs since the law defines a drug as including anything used in prevention, treatment, cure, and mitigation of disease.

"The law further says that a drug is adulterated if it falls below its own declared standard of strength. If a surgical dressing or bandage or similar product is declared to be sterile and is not sterile in fact, it certainly falls below its declared standard."

Mr. Campbell went even further in his interview with DRUG AND COSMETIC INDUSTRY when he said that "products intended for surgical use ought to be sterile." Whether the courts, however, will hold that in the sale of bandages, dressings, sutures, etc. for surgical purposes it is implied that they are sterile, Mr. Campbell did not assume to state. However, it is understood that seizure has been authorized of surgical dressings and the like which are not labeled "sterile" or "sterilized," or anything of the kind, but where the character and appearance of the label indicates that the product is definitely for surgical purposes.

This is in line with the policy of F. D. A., as outlined in some detail by Dr. Durrett to DRUG AND COSMETIC INDUSTRY.

"The language of the act is plain to anybody reading it," declared Dr. Durrett. "The definition of a drug includes any substance used for prevention, treatment, cure, and mitigation of disease. Drugs are supposed to be safe. If they are dangerous, they are not safe. A bandage is not safe if it is infected with bacteria. If a manufacturer wants to sell a bandage and bacteria, let him label it 'bandage and bacteria' or 'bandage with bacteria'."

Asked whether some bandages or similar preparations might be safely used though not sterile—for example, in treatment of swellings or similar conditions where the skin is not broken, Dr. Durrett replied that the law "goes to safe bandages; if a manufacturer wants to sell unsafe bandages, let him tell the public, so they can take precautions." Dr. Durrett does not insist that all drugs must be sterile, pointing out that some are in fact living organisms.

None of the F. D. A. officials is very definite as to why the Administration has waited so many years to press the cause of sterility in bandages, surgical dressings, etc. Attention was called, however, to a court decision about 1910, in a case against F. J. Stewart, in

BANDAGES

By H. C. HALLAM

WALTER G. CAMPBELL

the Federal District Court for Eastern Missouri. According to Dr. Durrett, the effect of this decision was that goods such as bandages, etc., or devices, were held not subject to the law. Legal advice obtained by F. D. A. to that effect appears to have been responsible, in part, at least to F. D. A. "laying off" of bandages and the like.

The Missouri decision, published as Food and Drug Notice of Judgment 496, recites that it involved F. J. Stewart's adhesive plaster pad containing a compound drug cone. The Department held it was misbranded. The case came up before the Missouri District Court where Stewart filed a demurrer. The label involved claimed that the pad would cure hernia. The company in its demurrer claimed that the law did not apply to plaster pads; therefore it was no offense if it was misbranded. A circular accompanying the product containing statements objected to by the government, the demurrer declared, was not a label or brand upon the article. It was asserted in Stewart's behalf that the drug in the cone was not misbranded because there was no label on the cone containing the drug but only on the plaster pad. In the government's position in this case, there was involved, in addition to the idea of alleged misstatement borne upon the package containing the drug, according to the demurrer, the further idea of misrepresentation as to the nature rather than the quality, curative in any degree or otherwise, of the drug contained in the package.

The court sustained the demurrer, which, apparently, ended the case. James Wilson, then Secretary of Agriculture, in Notice of Judgment 496, in 1910, announced that the Department would not accept a decision by the district court or a circuit court as final until they were acquiesced in. Apparently the district court decision was acquiesced in, in this case.

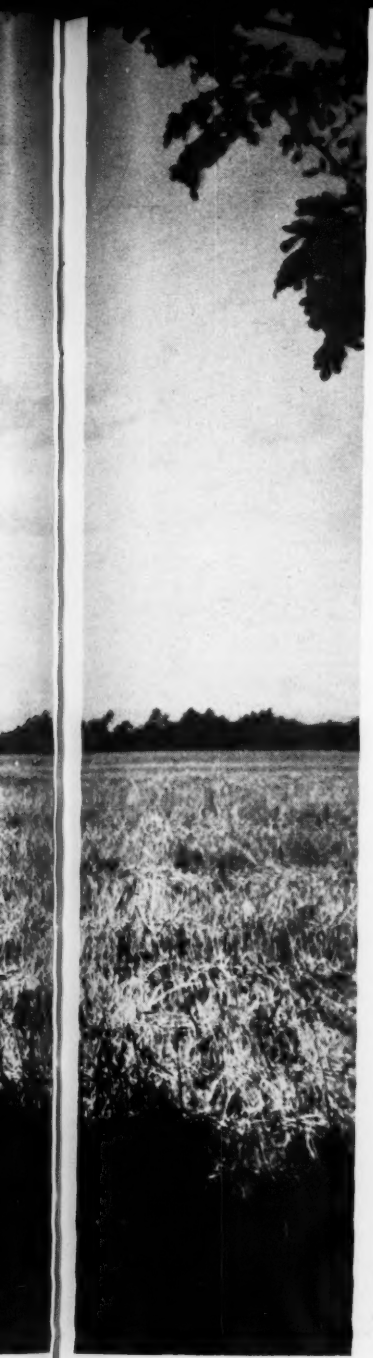
Followed more than a quarter of a century until the question of sterility of surgical supplies came up. A few years ago, when Dr. Frederick J. Cullen, now Washington representative of the Proprietary Association, was chief of Drug Control in F. D. A., it is understood, it was held that surgical ligatures must be sterile. Again, more recently, a District of Columbia court, in the case of Jaeger, Bigelow Company, decided that sutures were drugs within the meaning of the law. And yet again, the Federal District Court in the National Capital over-ruled a demurrer against an F. D. A. case involving seizure of 1,000 dozen tubes of cat-gut ligatures. Both of these last-named cases are still pending on appeal at this writing.

Mr. Campbell states that the question of sterility of bandages and dressings, etc., came to the front about two years ago. The case against the Bay Company began about one year ago. Dr. Durrett refers to the Bay Company case as the only contested case that has so far developed involving sterility of bandages, and the first time that the Administration has tried to obtain a decision in such a contested case. In a great many other cases involving similar products, he states, manufacturers and others, have not contested F. D. A.'s action and the seized goods concerned have been destroyed. In every case so far decided in recent years, according to Dr. Durrett, the court's judgment has been invariably in favor of the government. During the campaign to insure sterility of bandages, etc., according to official announcement, tens of thousands of packages of absorbent cotton, bandages, and adhesive plaster, of adhesive compresses, gauze, pads, sutures, and first-aid kits have been seized; and, according to Dr. Durrett, they have all been destroyed.

It would not be correct to say that drug trade representatives are not in sympathy with the F. D. A. cam-

(*Continued on page 190*)

CANANGA OIL



COURTESY THE PERFUMERY AND ESSENTIAL OIL RECORD, LONDON

PROBABLY because cananga oil is particularly adapted to perfuming fatty oils it is most valuable as a soap perfume, being used in floral odors such as jasmin, violet and lilac. It is also used to some extent in perfumery but primarily in the cheaper types. The closely related ylang-ylang oil is more in demand for the better class perfumes.

Oil of cananga and oil of ylang-ylang are obtained from the same botanical source, the superiority of the latter oil being due to the different conditions under which the trees grow, and to the methods of distillation. The tree from which the flowers are distilled is Cananga odorata. A native name is Alan-guilan, or Ihlang-Ihlang, meaning the "flower of flowers."

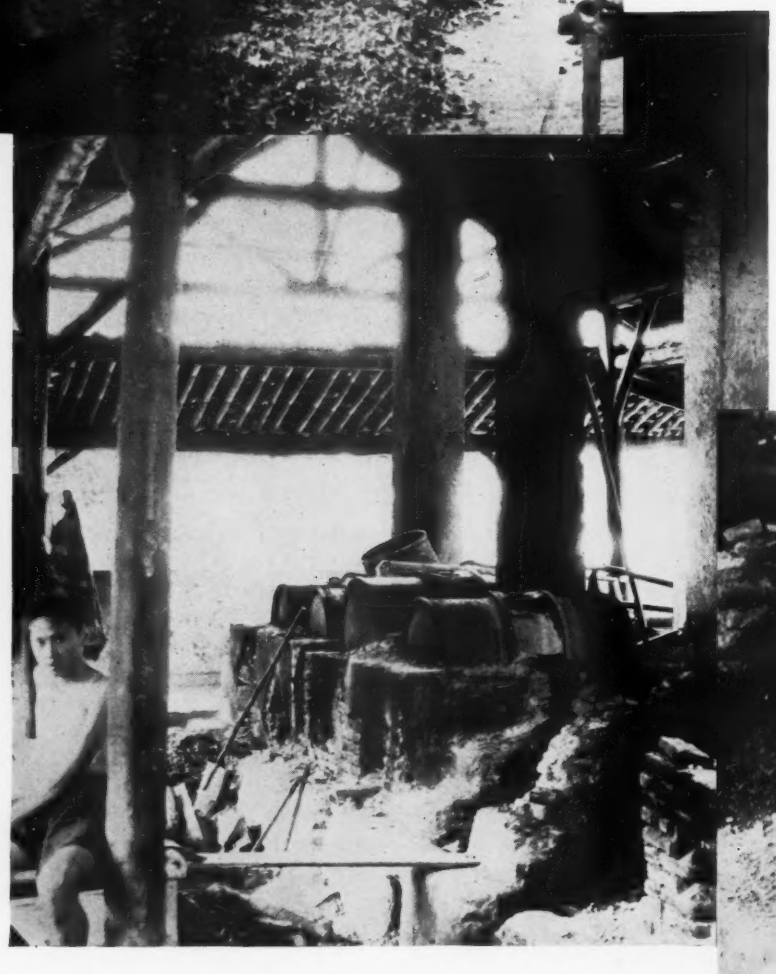
The distinction between cananga oil and ylang-ylang oil is not sharply defined. The former usually consists of the higher fractions containing a greater proportion of sesquiterpene, but in some districts the entire oil is sold as cananga oil. Ylang-ylang oil is the finest grade, consisting of the first fractions of the oil, and containing a greater proportion of oxygenated constituents.

The cultivation of the cananga tree reaches its maximum degree of perfection in the Philippine Islands, the finest oil being distilled in Manila. A considerable amount is also distilled in the island of Reunion, and a good deal of oil of less fine quality comes from Java and the neighborhood. Commercially, the oil distilled in the Philippines is ylang-ylang oil par excellence. The oil from Reunion is usually termed ylang-ylang, but is not of such fine odor as the Manila oil; while the Java oil is known as cananga oil.

Cananga oil is a clear orange liquid distilled from the fresh flowers of the cananga tree found in large numbers in the low-lying regions of Java. Since time immemorial these trees have been planted in the vicinity of towns and villages for their sweet-smelling flowers, but usually grow in isolated spots, and seldom in large forests.

The cultivation of cananga trees is exclusively a native occupation. Cananga oil is produced in Java principally in the Cheribon and Bantam districts, Serang in Bantam being the center of the industry. The cananga trees flower twice yearly and it is usually possible to obtain raw material the year round. It is estimated that full grown trees produce about 125 to 150 pounds of flowers annually, and since from 350 to 400 pounds of flowers are required to produce one pound of oil, an abundant supply of raw material must be at hand to make distillation worth while.

Cananga oil is manufactured entirely in small native distilleries operated in the two districts where the trees are most plentiful. The stills are primitive, differing little from those used in Boeroe for the manufacture of cajuput oil. The apparatus is filled with previously pounded cananga petals and steam distilled in a manner not conducive to the highest yield of oil.



A characteristic Java scene and a Cananga collector with rod used to gather and cut the flowers from the tall trees is shown on the reverse page. At left and below are scenes typical of Cananga distilling. At right a man is climbing a bamboo ladder on a Cananga tree in Bantam.

The native producers market cananga oil in old beer bottles, kerosene tins, or similar second-hand containers, but exporters repack it in drums of 50 to 100 kilos capacity or ship it in cases of 25 kilos net content, packed in tins, 9 tins to the case.

No statistics are available showing the production of cananga oil in Java but between 10 and 15 tons is produced annually of which two-thirds is exported.

Batavia is the export market for cananga oil, four or five firms handling the bulk of the business. The trade is irregular, stocks often accumulating for months to be exhausted suddenly by heavy demand within a few weeks. The exporters ordinarily buy direct from the producers, taking their output as it becomes available, eliminating operations through the Chinese merchants.

The oil is received by exporters in various colors, orange, yellow, or red (over-boiled), which must be mixed to assure the exported product the standard clear orange color. Export transactions are generally negotiated between local and European or American importers.

Under present conditions it does not seem that cananga oil is likely to improve in quality. It will compete with ylang-ylang only on a price basis. An European estate in East Java, however, planted about 500 ylang-ylang trees from the Philippines which may materially influence the future character of the trade.

The method employed by the natives of Java to collect the cananga blossoms is particularly interesting. Cananga trees are often 30 to 35 yards high and, as the bark is rather slippery, it is not easy to climb such a tree, especially if the bark is wet after rain.

The generally used expedient is to fix a heavy bamboo rod of perhaps 6 inches diameter to each tree and lash it to the tree by means of a rope. Incisions made in the bamboo enable the flower gatherer to use the bamboo as a permanent ladder. The wood of the branches is peculiar, inasmuch as it is liable to break under very slight pressure. The flower gatherer cannot collect the flowers directly by hand, but must keep in the vicinity of the trunk, since a fall from such a distance means death.

The collector, therefore, uses a straight bamboo rod, just like an angler. On top of this rod a peculiar knife has been fixed. One half of the knife is intended for cutting the flower stalk by pushing the flower off. The other half of the knife points to the opposite direction and is used for cutting the stalk by drawing the rod in the direction of the gatherer. This small knife is very elastic and is not made from steel but from a certain bone of the water buffalo.

KNOWLEDGE OF VITAMINS

By A. RICHARD BLISS, JR.

THERE is no chemical justification for grouping the agents we call "vitamins" in a single class, for only one vitamin (B or B_1) has been shown definitely to contain amine groups. Six vitamins as chemical entities have been established to date; viz., A, B (or B_1), C, D, E, and G (or B_2). Some of these are sterols, others hydrocarbons, and at least one is a nitrogenous base. The most acceptable and practical grouping of the so-called "vitamins" is as a class of nutrient or dietary factors—a functional grouping which has served to stress the importance of these agents in health and disease through stimulating investigations concerning (1) the hidden properties of foods, (2) what we term "vitamin deficiency diseases," and (3) the effects of vitamin deficiencies on longevity.

The vitamins whose chemical compositions have been established are:

Vitamin A, $C_{20}H_{29}OH$, antixerophthalmic—anti-infective.

Vitamin B (B_1), $C_{12}H_{17}N_4OS{:}2HCl$, antiberiberi—antineuritic.

Vitamin C, C_6H_8O, antiscorbutic.

Vitamin D, $C_{47}H_{41}OH$, antirachitic.

Vitamin E, $C_{29}H_{50}O_2$ (?), antisterility.

Vitamin G (B_2), $C_{17}H_{20}N_4O_6$, antipellagric-antidermatitic.

There are eight postulated vitamins. The existence of these factors as separate vitamins is still under question. They include:

Vitamin G or B_2, the flavine fraction of the B complex.

Vitamin B_3, the heat labile pigeon and chick factor (Williams and Waterman).

Vitamin B_4, the heat labile rat factor (Reader).

Vitamin B_5, the heat stabile pigeon and chick factor (Peters et al.)

Vitamin B_6, the rat antipellagric factor (Gyorgy).

P. P. Body, the human pellagra preventive factor (Goldberger).

Vitamin D_2, the second calcifying factor in cod liver oil (Waddell).

Vitamin F, the group of fatty acids, containing two double bonds, said to be preventive of certain skin lesions.

The ultimate discovery of other vitamins seems probable.

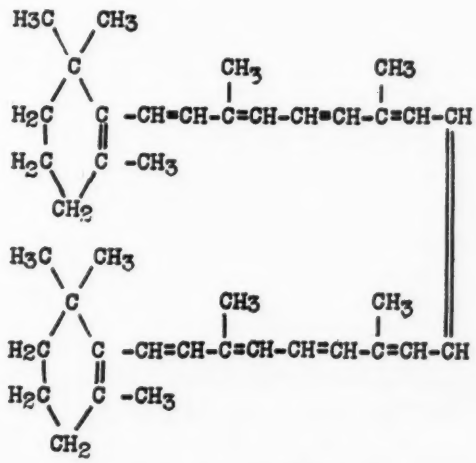
Vitamin A

We now know that fruits and vegetables are practically devoid of *active* vitamin A. This vitamin is produced in plant tissues as a pigment first known as "carotene," but now called "provitamin A," due to the fact that animals are able to convert it into *active* vitamin A. The evidence available indicates that this conversion probably takes place in the liver, and that it is brought about by an enzyme known as "carotenase." Vitamin A appears to be stored chiefly by the liver. In the human body carotene is found in the blood in colloidal combination with albumin, liver, kidneys, spleen, retina of the eye, bone marrow, corpus luteum, and the subcutaneous fat. Its rather wide distribution and storage suggests the possibility of its utilization for purposes other than its conversion into vitamin A. The vitamin potency of cow's milk is due partly to vitamin A and partly to carotene; conse-

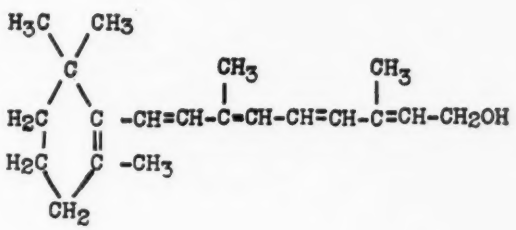
This article by Doctor Bliss makes no pretense at completeness, but brings out of the voluminous, and more or less repetitious and somewhat fragmentary and confusing, literature what we really know now about the vitamins which is of practical, everyday value.

quently, since vitamin A is practically colorless, the color of milk is no direct index of its vitamin A potency.

Four forms of carotene have been found; viz., alpha, beta and gamma carotene, all three of which have been assigned the empirical chemical formula $C_{40}H_{56}$, and kryptoxanthin, $C_{40}H_{55}OH$. Beta carotene seems to be the superior source of vitamin A, and for that reason it has been selected as the basis of the International Unit of vitamin A. The structural formula for beta carotene and the suggested formula for vitamin A appear below.



Formula for Beta Carotene



Suggested Formula for Vitamin A

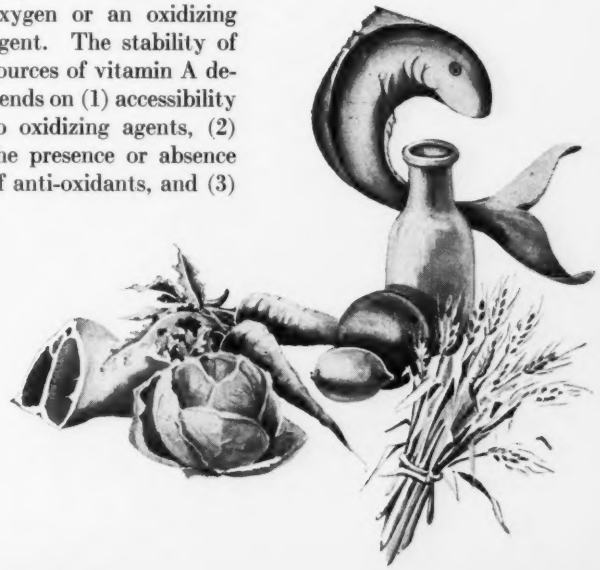
Contrary to popular notion, pure vitamin A has never been isolated and identified, and there are some investigators who are of the opinion that it may exist in several chemical forms. Many investigators lean toward the view that the vitamin A derived from fish liver oils is just half of the beta carotene molecule.

The chief observable differences between vitamin A and carotene are:

Vitamin A	Carotene
Almost colorless.	Intensely yellow.
Found in animals.	Synthesized by plants.
328 mu mu absorption band developed.	328 mu mu absorption band *absent.*
Brilliant blue SbC13 reaction at 610 to 630 mu mu.	*Greenish-blue* SbC13 reaction at 590 mu mu.

The melting point of alpha carotene is 183° C.; beta carotene, 183° C.; and gamma carotene, 174° C. Carotene iodide, monohydrocarotene, dihydrocarotene, and carotene oxide are said to act as provitamin A.

The physiological activities of both carotene and vitamin A are rapidly destroyed at high temperatures *only* in the presence of oxygen or an oxidizing agent. The stability of sources of vitamin A depends on (1) accessibility to oxidizing agents, (2) the presence or absence of anti-oxidants, and (3)



preventing oxidation in manufacturing periods and merchandizing. Practically all animal and plant sources of this vitamin undergo gradual destruction of vitamin A during storage unless oxidation and fermentation are prevented. Rancid fats promote the destruction of vitamin A probably through a catalytic action on the auto-oxidative processes during storage. Certain of the oil sources of vitamin A contain natural anti-oxidants, and some manufacturers add small amounts of hydroquinone as an anti-oxidant.

There is little destruction of vitamin A during our modern canning processes. Frozen products retain their vitamin A potency during the usual merchandizing periods. Although dehydration may be destructive to vitamin A, carefully controlled rapid drying to inactivate enzymes prevents any appreciable loss. The ordinary cooking of vegetable foods destroys but little of the vitamin A potency, probably because carotene is less labile in vegetable tissues than is vitamin A. The proper sulfuring of fruits is claimed to increase vitamin retention. The vitamin A of fish oils is probably produced by the fish from ingested marine plants, and the higher potency of halibut livers is doubtless due to the fact that the halibut are much older than the codfish when they reach the market, and consequently have had a longer storage period. Green feed increases the vitamin content of cow's milk.

Light is apparently essential to the formation of carotene in plants, and, as a result, the chlorophyll content of leaves is a dependable index of relative carotene potency. The green leaves of lettuce, cabbage, etc. are higher in carotene content than the white leaves; green asparagus is richer than white asparagus; yellow corn, sweet potatoes and carrots than white corn, white potatoes and parsnips. The yellowness of the endosperm of corn rather than of the pericarp is the criterion.

All available data indicate that carotene and vitamin A in themselves are nontoxic. The danger of high potency vitamin A concentrates is apparently due to the presence of other toxic factors. Definite knowledge is needed concerning the relation between the dosage of vitamin concentrates and the requirement of other factors to make the preparations both effective and nontoxic. Labels should state not only the vitamin A potency but evidence of the absence of untoward actions as well.

As to the functions of vitamin A, we know today that it is (1) essential to growth, (2) to vision, and (3) to maintaining certain tissues in normal condition. It is probable that there are other as yet unestablished functions of this vitamin. The body is capable of storing vitamin A and provitamin A, and of drawing on such supplies when the intake is inadequate. Its very definite relationship to growth led to its discovery. It has a dual role in maintaining vision; viz., (1) it prevents morbid changes in the cornea, which may lead to loss of vision, and (2) it is essential to the normal functioning of the retinal organ, of which it is a chemical component—the first established example of a vitamin being an actual building material of a bodily structure.

In the cases of specialized tissues, deficiency in vitamin A intake or absorption appears to be definitely related to (1) the ability of tissues to resist infections (colds, pneumonia, tuberculosis, etc.); (2) defective hearing; (3) urinary calculi; (4) fertility and reproduction; (5) the condition of the teeth and bones; (6) skin lesions (dryness, urticaria, furunculosis, keratosis, intertrigo, scalp abscesses, greying and loss of the hair, etc.); (7) the condition of the epithelial lining of various organs and ducts (bronchi, vagina, uterus, trachea, submaxillary glands, pancreatic ducts, etc.); (8) degenerative changes in the nervous system.

Further extensive clinical studies of the effects of increased vitamin A intake are needed. Many of the discouraging reports are based not infrequently on unsatisfactory experiments, particularly from the standpoints of inadequately long periods of treatment and observation, and an insufficient number of cases studied clinically. The question of dietary intake is not the only important factor in clinical investigations. Faulty absorption of the vitamins or of their precursors due to liver and gastrointestinal diseases, and increased demands during rapid growth, pregnancy and severe infections require continued critical study.

(Continued in the next issue)

F.D.A. and Sterile Bandages

(Continued from page 183)

paign to insure sterility of surgical bandages, etc. On the other hand, however, some of these representatives are inclined to criticise certain features of the Department's policy. It is understood that in establishing the basis for this campaign, Dr. Durrett circularized a number of surgeons asking whether they thought surgical bandages, dressings, etc., should be sterile. The reply was uniformly affirmative, it is reported.

But to be logical and consistent, it is suggested, sterility should be insisted upon and carried through to the point where the bandage or whatnot is actually used in dressing a patient's wound. Ordinarily, it is said, a physician or surgeon will buy a package of gauze dressing, pads, or bandages and use a portion of the same, placing the remainder in his office cabinet or in his professional bag which he carries with him on his rounds. The bag or cabinet, it is declared, is not sterile in all probability. The bandages or dressings may be intermingled with surgical instruments, medicines, drugs, etc., most of which probably are not sterile. The doctor visits patients with typhoid fever, diphtheria, or other contagious diseases, carrying his bag and its contents along with him and then goes on to the next patient, perhaps carrying more bacteria with him. However, F. D. A., admittedly, cannot control the movements or practices of the physician or surgeon, nor can its power extend beyond the manufacture, distribution and sale of surgical supplies.

There seems to be no difference of opinion in the drug trade, so far as contacted, on the proposition that liga-

(Continued on page 193)

GELATIN IN PHARMACEUTICALS

By L. F. TICE

To many who have not considered gelatin closely, it may appear a rather commonplace substance sold primarily as a foodstuff and lacking any properties of value in pharmaceutical manufacture. Nevertheless, large quantities of gelatin are used annually for many specialized purposes and recently developed applications indicate that it should gain even greater favor. For example, gelatin has been developed into an emulsifying agent with points of superiority over customary substances employed.

Since much of the information on gelatin in the latest text books, is misleading and frequently erroneous, it would seem advisable to present a brief resume of the characteristics of gelatin. It is unfortunate that the many advancements made in the manufacture of edible gelatin have not been more widely publicized. Edible gelatin as now manufactured by any of the reputable companies, occupies a position of unquestionable purity from both a chemical and bacteriological standpoint. Occasional attacks made on this substance by certain individuals is evidence of their lack of information or proper investigation into the subject.

Many types and grades of gelatin are available in commerce. An understanding of these variations is important if one is to select a gelatin for any specific purpose since it will be found that what one gelatin will do excellently another of a different type will completely fail to accomplish. Thus it must be realized that gelatin as a title is of a generic nature. There are two general types of gelatin available based upon the kind of processing to which the raw material is subjected. One type is prepared by a liming treatment of the precursor, and, when finished, is found to possess an isoelectric point of approximately 4.7. The second type is processed by an acid treatment of the precursor and indicates an isoelectric zone between pH 7.5-8.0. It will be seen that the charge possessed by the gelatin in solution will, between the pH values 4.7 to 7.5, be positive or negative depending upon its type. In addition to difference in charge, many of the properties of a gelatin of any given pH will depend upon its type. Furthermore, within each type there are many grades based on jelly strength, viscosity, raw material, etc. This should clearly emphasize that any research involving gelatin without careful consideration of these variables cannot give conclusive results.

The most convenient form in which to buy gelatin today is the so-called "granulated" gelatin. Actually it is pulverized to a fairly uniform mesh. The only objection to the once popular sheet form is the time required for solution and the difficulty of accurate weighing. No longer is there any need to soak gelatin in cold water for several hours and then decant the supernatant liquid in order to wash out impurities. The high degree of purity now found in edible gelatin obviates this step and the gelatin may be dissolved directly in the water in which it is to be used. This is done best by adding it to the cold water, allowing it to swell a few minutes, then warming until dissolved. In some cases where high concentrations of gelatin are to be prepared, as e.g., in making glycerinated gelatin suppositories, it is advisable to add the gelatin slowly, with stirring, to the hot solvent, since by this method the rate and degree of initial hydration is reduced, an important consideration when the available water is small in comparison to the gelatin.

Pharmaceutical uses of gelatin are varied in nature. Gelatin capsules as a form of medication are becoming more popular since they insure protection of the encapsulated material against the influences of air and moisture and they do not require the frequently objectionable binder incorporated in pill formulas.

The glycerinated gelatin suppository is widely used where a prolonged medication is desired since it acts not by melting at body temperature as does cocoa

butter, but slowly dissolves in the aqueous secretions after insertion. Glycerinated gelatin pastes are very useful types of medication which deserve more attention by the medical profession. These are applied to large areas of the skin by slightly warming the paste whereupon it softens and may be spread on the surface. It then quickly solidifies into a tough plastic coating which will not rub off and yet insures a very intimate contact between the medicament and the area treated. Clothing may be worn over the application since it acts also as a bandage. The mass is quite easily removed with warm water.

The gelatin coating of pills is an old practice still popular because it provides a tough, glossy, transparent and yet protective coating unequalled by most other substances.

Certain proprietaries employ gelatin for its protective colloid action since many substances when dried will not redissolve in water unless they are in the presence of a colloid like gelatin which confers on them reversibility with regard to solubility.

As a protective colloid and stabilizer, gelatin has found widespread favor and use in many food products, e.g., ice cream, salad dressing, etc., wherever a disperse system is present. Clinical results have shown definitely that modified milk formulas containing gelatin provide for infants a much more easily assimilated foodstuff than do similar formulas excluding gelatin.

One of the most recent developments for use of gelatin is in preparation of emulsions. As a result of an extensive and careful study, a form of edible gelatin of the highest purity has been developed having remarkable powers of stabilization for dispersions of oil in aqueous material. In order to distinguish this gelatin from other grades possessing considerable less efficiency it is now supplied under the trade-marked name of "Pharmagel" by the members of Edible Gelatin Manufacturers' Research Society and it is available from member companies in this organization. There has already appeared—*J. A. Ph. A. 24*, 1062 (1935)—a paper discussing the investigation of the stabilizing efficiency of gelatins leading to the development of this product. It is not the purpose of this paper to repeat those observations but to present some practical considerations concerning the use of gelatin in the preparation of emulsions and the characteristics of emulsions so prepared, together with some more recent observations as yet unreported.

First, let it be said that this gelatin is not offered simply as a substitute for acacia, tragacanth, agar, etc., but as a stabilizing material possessing qualifications different from these common materials. It is possible to prepare with gelatin certain types of emulsions that cannot be duplicated with any known emulsifying agent or combination of substances which can be taken internally. Furthermore, it is also the cheapest of any known edible stabilizer when one integrates the cost per pound with the amount required.

The technic of employing gelatin may well be considered here in brief. As supplied commercially, this new gelatin is in granulated form with pH varying slightly between the extremes pH 3.8 and 4.8. In preparing a gelatin solution for emulsification of oil, the proper amount of gelatin is weighed and poured on the surface of water at room temperature. The tartaric acid necessary for adjustment of pH level to about 3.2* is added, and after a few minutes the mixture is heated until the gelatin dissolves. The next step involves a controlled hydrolysis of the gelatin by maintaining the solution at 95-98° C. for 15 minutes. This reduces the viscosity of the gelatin solution so that the emulsion when made will be quite thin, almost milk-like in character. If this hydrolysis step is not included, emulsions are quite viscous but slowly become thinner on aging. The advantage of using the hydrolyzed material is that the product does not change noticeably in viscosity over a considerable period of time.

A typical formula with directions follows:

Gelatin	6 or 8 Gm.
Tartaric Acid q. s. ——→ pH 3.2	
Syrup	100.00 cc.
Vanillin	0.04 Gm.
Alcohol	60. cc.
Water q. s. To Make	500. cc.
Heavy Mineral Oil	500. cc.
	To Make 1000. cc.

The gelatin and tartaric acid are added to about 340 cc. of cold water, allowed to stand several minutes, then heated until dissolved. The temperature is then raised to 95-98° C. and maintained for 15 minutes. The solution is next cooled to about 60° C., the syrup added followed by the vanillin dissolved in the alcohol. Water is added to make 500 cc. The mineral oil is finally poured into the aqueous mixture and the whole vigorously mixed either by shaking or with an appropriate mechanical mixer. This is followed by homogenization, the emulsion being homogenized at 3,000-3,500 lbs. pressure and recirculated, say twice, to insure uniform and fine dispersion. The resultant product is remarkably palatable possessing none of the gummy thick taste so evident in similar emulsions made with other stabilizers.

The palatability of this emulsion is due to two factors—first, the almost negligible amount of emulsifying agent present, only 0.6-0.8 per cent in contrast to the 5-10 per cent in most emulsions; and second, its extremely low viscosity. To many not understanding the principles involved, it is difficult to believe that 50 per cent of heavy mineral oil could possibly be present in a product so thin. The consumer reaction has been found after extensive observations to be very favorable, it being an almost unanimous opinion on

*This amount will appear on the "Pharmagel" package, the average amount required being about 75 mg. per gram gelatin.

their part that thickness in an emulsion is in itself suggestive of an oil. Since the very function of an emulsion is to mask the taste of oil this association of thickness with oiliness does much to nullify the popularity of a thick emulsion preparation.

Although a few thin emulsions of this type are now on the market, the field is still open. Never before have thin emulsions been possible, and once the public becomes aware of this new type of emulsion the older forms will lose greatly in favor.

It is true that viscosity in an emulsion retards creaming, but gelatin emulsions have small particle size and cream very slowly, and a clear lower stratum so frequently seen in many emulsions, rarely, if ever occurs. Furthermore, in such a very thin product the bottle cannot be wrapped or carried home from the retailers without accomplishing perfect mixing. This is decidedly not the case with certain thick emulsions now commonly sold, since in many cases, once they cream even vigorous pounding and shaking will not mix them uniformly. The time has come in pharmaceutical manufacture when one should consider other features concerning an emulsion just as important as the rate of creaming. This factor, although significant, should not be the sole criterion of judging an emulsion.

For those who desire to prepare a thick product, gelatin may still be used, although no attempt should be made to combine acacia, tragacanth or agar with it. Recent experiments have shown that by adding to the gelatin solution following hydrolysis, 1 to 5 per cent of white dextrin (based on volume of finished emulsion), stirring until dissolved, and filtering, an emulsion of much greater viscosity may be prepared. Such emulsions prepared in the writer's laboratory have not, during the period of observation, become thinner. If an emulsion is to be used within a month, e.g., in prescription practice, one may accomplish a similar result by eliminating the hydrolysis step and using only 0.5-0.6 per cent gelatin.

One of the most unique emulsions using gelatin has been the 50 per cent castor oil emulsion. In preparing this product the oil should be flavored and not the aqueous phase. The Aromatic Castor Oil of the National Formulary, except with only one-half the specified amount of flavor, provides a fairly good emulsion oil. There is, however, no doubt that a better flavor could be developed. In preparing the emulsion it is advisable to warm the oil prior to mixing and homogenizing in order to lower its viscosity and render it more easily dispersed. Here again 6 per cent of alcohol (based on total volume) should be incorporated as a preservative.

It may be mentioned at this point that emulsions containing gelatin at the recommended pH are subject only to mold growth and so present no more of a problem from the standpoint of preservation than similar emulsions containing acacia.

In the preparation of cod liver oil emulsions using gelatin, difficulty is experienced if the preparation is aged beyond a point. Certain constituents of the oil react with the gelatin to produce a curd. Cod liver oil emulsions are not generally satisfactory, in any event, since there is a considerable tendency to lose vitamin A by oxidation.

Pharmaceutical gelatin should prove very efficacious in the stabilization of any system of the oil-in-water type of emulsion. It is believed that it will eventually replace many other grades of gelatin of equally high purity now used in other fields where the stabilization of oil dispersed in aqueous material is the prime consideration. It is so far superior to ordinary gelatins for stabilization purposes that these applications should be carefully considered.

In the field of flavor emulsions where various volatile oils need be emulsified the use of gelatin would seem to be of value. Many technical emulsions might well be made with this edible gelatin whose relative cost compares very favorably with many of the technical emulsifying agents. Technical acid emulsions of low viscosity may be produced with gelatin while other technical emulsifying agents providing a thin product such as the alkali soaps, the ethanolamine stearates and oleates, etc. contribute a very marked alkalinity to the product.

F.D.A. and Sterile Bandages

(*Continued from page 190*)

tures, bandages, and dressings should be sterile when they leave the factory. But attention is directed to the extreme difficulty, if not impossibility, of keeping such products sterile even in the channels of trade, and even more so, once they get into the hands of the medical and nursing professions, not to mention the laity.

With particular reference to the Bay Company case, it may be stated as a fact that interested members of the drug trade were not surprised at the court's decision in favor of the government. It is understood in this connection that the briefs and arguments in behalf of the industry in this case were made rather with an eye to the ultimate decision of the Federal Circuit Court of Appeals than to the district court's decision. Appeal is being taken from the latter. While the goods in question were seized on the ground that they were not sterile, although marked sterile, yet it is reported on good authority that that was not the question really at issue in the district court. The question decided by the court was whether a bandage is a drug.

There is an inclination in trade circles to attribute F. D. A. activities concerning bandages, dressings, etc., in part to an advertising campaign of a well-known manufacturer of surgical dressings which was based on the proposition that his goods were sterile. The implication in this advertising is said to have been that the products of other manufacturers were not sterile.

(*Continued on page 200*)

CHRISTMAS SETS

BOURJOIS and Coty have been among the first to present their Christmas merchandise and an examination of what they have done may be useful as indicating trends for the coming season. In general the tendency is to give more than ever for the money but to scale the ensembles a trifle higher in price, to take full advantage of the continued desire to trade up. Since this tendency is at work in lower as well as in higher price ranges, the Christmas lines have been carefully planned with that fact in mind.

Both Bourjois and Coty are offering between forty and fifty specially planned gift sets for this Christmas business. The Bourjois sets peak at $25, with the travelling kit pictured here, which comes in two styles—one with zipper closure. The Coty peak is the gift ensemble de luxe in lovely box and white satin at $19.75. The least expensive gift package of Bourjois is a $1.10 holiday package of perfume; while Coty's lowest appears to be a manicure ensemble at $1.50. The bulk of the gift sets are priced at from two to three dollars.

Broadly, the Bourjois' policy this year has been to step up the Evening in Paris gift set line, so that each number this year has been given the appearance and value of the next high priced one of last Christmas. Four interesting combinations of the Bourjois sets are shown in their gala holiday attire. A package in the form of a crescent this year contains Evening in Paris perfume, face powder, eau de toilette, a compact and lipstick, box in the brilliant blue and silver that characterizes the Evening in Paris sets. This retails at $6.50. Traveling kits always make good gift sets and Bourjois $25.00 retailer comes in two styles, one with a zipper closure. The company is also offering a large number of

popular priced sets ranging from as low as $1.25. The one pictured containing perfume, rouge, face powder and talcum retails for $2.95. Perfume, toilet water, face powder and a triple compact making a neat pyramid in an elaborate package with a tassel at $8.75 is just another of the extremely attractive Bourjois sets.

Coty has a wide range of gift packages—bath, perfume, face powder, manicure, and men's preparations, to choose from. The compact ensemble containing a single compact, purser, and periscope lipstick is sure to be greeted with ohs and ahs. The compact is pleasantly thin, flat and light, and the delightful trio is in a brightly colored box, at $3.50. The bath luxuries ensembles are pleasingly paired in various combinations. The decorative design of the gift cases and the characteristic neptune green of the contents make them particularly appealing. The one shown is a $2.25 retailer.

The de luxe gift ensembles with their bright color accents, with flacons and lipsticks, compacts, etc., softly embedded in white satin, contain from seven to ten pieces, from $9.75 to $19.75.

Coty never overlooks the large market for men's sets during the holiday season and offers new presentations for the man. Set boxes for men unite in teams of two, three, or four pieces, such preparations as shaving cream, shaving soap in a wooden bowl, shaving lotion, hair lotion, and talc (especially tinted for men, with prices ranging from $1.65 to $3.95.

All of these beautiful sets indicate the pace for the coming season, with all forecasts pointing to a season which will surpass even the highly satisfactory market of last year.

TESTED FORMULAS

HAND creams are cosmetic preparations applied to the hands to put them in better condition. Lotions, for this purpose seem to be considerably more popular than creams and will be discussed in a succeeding article in this series, but creams retain a fair hold on the market.

Formulation of a cream will depend largely upon the broad general purpose for which it is intended. If the hands are chapped and roughened by work, weather and other influences, the cream will have to be more effective than is necessary merely for keeping hands in good condition. A so-called therapeutic cream should therefore be considerably more emollient in its action and the best way to obtain this effect is by the use of oily, water-in-oil types of cream. This type of cream, however, leaves the hands definitely oily and is not suitable for general use. The best type of regular hand cream is an oil-in-water emulsion which disappears completely when rubbed into the skin.

As in all emulsified cosmetic products, three major components will be necessary. These are the active ingredient or ingredients, water, and the emulsifying agent. Water, although often considered to be merely a method of lowering cost is really highly essential. Its presence assures a white creamy mixture rather than a combination of greases without sales appeal and unpleasant to use. Moreover, there is considerable reason to believe that the presence of water either in the internal or the external phase of the emulsion is essential in promoting absorption of active ingredients by the skin.

When water is in the external phase of the emulsion, rubbing into the skin makes the water evaporate while the finely divided particles of oil actually penetrate at least into the upper layers of the skin. In the reverse case, with water internally dispersed, this evaporation takes place much less rapidly and materials in solution in the water will be taken up by the skin. The oil in the external phase is also absorbed to a more or less great extent.

The active ingredient in hand creams is generally a fat or oil, which may sometimes include vitamins, and glycerin or its substitutes are often considered in this category. For ready absorption by the skin, only vegetable or animal oils should be used. Cocoa butter is a valuable emollient, as are cetyl alcohol and spermaceti. Lecithin and cholesterin are often included in these formulas; their use together is recommended to conform with their ratio in the skin. In many cases, however, it is better to consider their respective emulsifying properties and make use of them accordingly, cholesterin tending to stabilize water-in-oil emulsions while lecithin is an oil-in-water emulsifier. The latter shows considerable tendency to darken in creams and should be used with caution.

In discussing active ingredients, we must consider the influence of pH. The reaction of the normal skin surface is on the acid side; washing with soap or other alkaline materials may change this normal reaction, and might be a possible cause of excessive dryness of the skin. In any event, it should be useful to normalize the skin surface by treatment with a mild acid. However, since most vanishing or hand creams are made on an acid basis, with stearic acid in excess, it is logical to assume that the cream will react with any alkali left on the skin surface and restore a normal reaction.

The emulsifying agent used is either stearic acid soap for stearate creams, or oxycholesterin for water-in-oil preparations made either with lanolin or lanolin absorption base. Other substances are also finding use as water-in-oil emulsifying agents. The ratio between oil and water and the type of emulsifying agent used will determine the emulsion type. In general, many substances that cause oil-in-water emulsions to break down because they react with the soap can be added to the reverse type of emulsion because they do not react with the given water-in-oil emulsifier. There are available, however, substances promoting oil-in-water emulsions which are stable to acid, salts, etc. and these can be used

HAND CREAMS

By JOSEPH KALISH

No. 1

Glyceryl monostearate	**20.0**
Lecithin	**2.0**
Peanut oil	**5.0**
Ethylene glycol ethyl ether	**10.0**
Water	**63.0**

No. 2

Stearic acid	**15.0**
Cetyl alcohol	**1.0**
Triethanolamine	**2.0**
Sorbitol	**10.0**
Water	**72.0**

No. 3

Absorption base	**25.0**
Cocoa butter	**5.0**
Sesame oil	**10.0**
Paraffin	**5.0**
Water	**55.0**

No. 4

Stearic acid	**20.0**
Lanolin	**1.5**
Spermaceti	**2.0**
Potassium hydroxide	**1.5**
Glycerin	**8.0**
Water	**67.0**

to make vanishing creams that are more acid than the usual type.

The ratio between water and oil largely determines the consistency of the emulsion, which can also be modified for the inclusion of hardening agents. Paraffin and ceresin are used for this purpose in oily creams, while the excess stearic acid serves the same purpose in vanishing creams. Beewax creams have not been discussed in this connection because they are somewhat too waxy and may leave a visible white deposit on the skin.

Glycerin serves a double purpose as an emollient and as an humidifying agent to retard drying of the cream. Many skins, however, react unfavorably to the sometimes excessive dehydration caused by glycerin. Various glycol ethers are used as glycerin substitutes while thick sorbitol solutions, as has been previously mentioned, hydrate the cream without dehydrating the skin and are unlikely to cause irritation.

There seems to be no good reason for including gums in hand creams. Gums are necessary to give body to a lotion and to stabilize it, but the cream can be made with proper consistency by other means and is also completely stable when properly made.

Oily creams are specially valuable in cold water for the prevention and treatment of chapped skin surfaces. Since the skin may be quite tender, the use of an oil-soluble anaesthetic such as ethyl aminobenzoate or chlorobutanol is recommended. A mild antiseptic to some extent soluble in both oil and water is also beneficial. A mild astringent such as boric acid or a small amount of alum will tend to toughen the skin.

PERMANENT WAVE SOLUTIONS

The essential ingredient in any permanent wave solution is an alkaline substance of some kind. It is this substance which causes the wave to take, and whether it be ammonium hydroxide, ammonium carbonate, borax, sodium or potassium carbonate, or a mixture of similar alkaline ingredients, the action is about the same—for these alkaline chemicals soften the hair by speeding up the hydrolysis of the hair-protein. As soon as this condition takes place, the hair becomes swollen and with the aid of heat and stretch can be shaped into any desired form.

The alkaline feature of a permanent waving solution enables it to perform two functions: First, it allows the solution to break through the emulsifiable oils on the surface of the hair, which could not be done ordinarily were the solution not alkaline. Second, it speeds up the hydrolysis of the hair-protein, thereby rendering the hair soft and pliable. The more alkaline the solution the more quickly this softening effect occurs although there are certain limits of alkalinity beyond which one cannot go without endangering the safety of the hair. For this reason only weak alkalies are used, ammonium hydroxide predominating because of its high penetrating power. When sodium and potassium compounds are employed, they are utilized in the form of alkali salts which give a definite and controlled pH concentration. Sodium carbonate, borax, and potassium carbonate are the most frequently used for this purpose.

The protein hydrolysis of the hair is not the only reason why a permanent wave solution works. There are other reactions taking place and some of them are pretty complex in character. Under the influence of heat the waxy cholesterol melts in the hair and when it recrystalizes there is a minor tendency for this substance to shape the hair. Other reactions taking place between the ammonia and various hair substances also effect the nature of the wave.

Another topic which may be interesting while we are on this phase of the subject is the coating effect that many chemicals exert upon the hair. Borax, in particular, is an excellent coating agent. As a borax solution dries on the hair, or is evaporated under heat, it leaves the cuticle covered with a very thin film of this chemical.

The effect referred to can be quite simply studied by evaporating a 1½ per cent. borax solution on a watch glass. It will be noticed that the borax deposited after the water has been evaporated will resemble a thin layer of translucent material. This coating undoubtedly plays an important part in building up the hair and also in the lasting qualities of a wave.

In my opinion, the following requisites are essential for securing a permanent wave: Hydrolysis of the hair protein; stretch; heat; and the coating influence of the chemicals used.

Chemicals which assist in the hydrolysis stage of permanent waving are: Borax, ammonium hydroxide, ammonium carbonate, monoethanolamine, sulphonated oils, and the potassium and sodium carbonates.

Heat may be obtained either by chemical or mechanical means.

Chemicals with more or less of a coating effect: Borax, the alkali carbonates, silicates, and various gums.

In general, a permanent wave could be given merely by using a solution of borax and ammonium hydroxide.

If such is the case, naturally, the layman will ask why additional ingredients such as ammonium carbonate, potassium and sodium carbonates, keratin, ammonium chloride, keratin, lanolin, sulphonated oils, cellosolves, potassium sulphite, mineral oil, oleic acid and many other chemicals should be included in the permanent waves that are now being marketed.

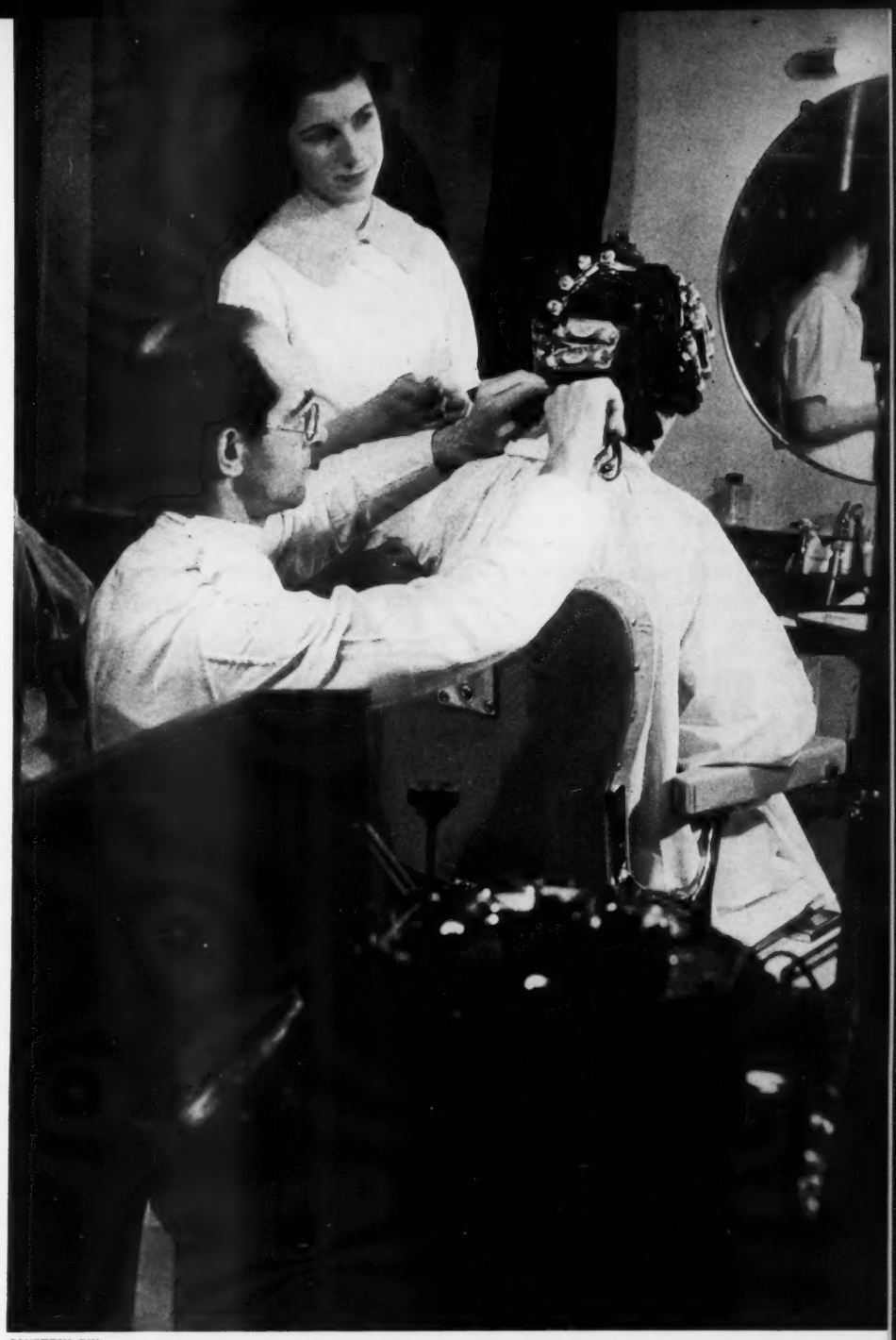
Generally speaking, these substances are included to supplement the ammonium hydroxide and borax. More often they remedy the bad effects brought about by the use of a simple ammonium hydroxide alkali salt mixture.

Potassium and sodium carbonates, being more alkaline than borax, give a faster hydrolysis and, according to some authorities, a more lasting wave.

Ammonium carbonate is used because it acts as a

By

THORPE W. DEAKERS*



COURTESY PIX

reservoir to replace any of the volatile ammonia which may escape. The use of ammonium carbonate furthermore insures a steady supply of ammonia gas throughout the heating process. As ammonium carbonate is volatile—decomposing into ammonia and carbon dioxide—there is no flaking on the hair after waving.

Keratin finds its way into some of the more modern waving solutions because it is claimed that this substance hardens and builds up the resistance of the hair during waving. Keratin is employed also because of its close chemical resemblance to certain elements in the hair. Lanolin is becoming more extensively used in waving solutions. The process of permanent waving has a tendency to dry the hair and make it brittle. Lanolin being a natural animal fat counteracts this bad feature by replacing the fat-wax mixture on the cuticle layer. In time, it seeps into the hair itself where it mixes with the natural cholesterol content of the hair. Very little lanolin should be included in a waving solution for this purpose. About one per cent. is sufficient. If properly emulsified, lanolin gives a "milky effect."

During the ritual of the permanent wave a definite amount of oxidation occurs. In dark-headed subjects this process causes little or no harm, but in the blonde type discoloration frequently takes place when the steam, borax, and ammonia present react with the melanin in the hair. Potassium sulphite and sodium sulphite retard this oxidation, however, most permanent waving solutions are apt to have too much sulphite in their formulation.

Mineral oil is employed in most cases to secure an opaque emulsion. Other than this, it possesses no apparent advantage.

Sulphonated oils perform a number of functions: They make for quick hydrolysis; enable the alkali concentration to be cut down; assist in stabilizing emulsions; and keep the hair from becoming brittle.

*Los Angeles, Cal.

When mixed with various oils and poured into the alkaline solution, oleic acid forms an emulsion. Alone, however, oleic acid cannot form a milky solution because it keeps reacting with the alkali present to form a soap. Soap makes the hair sticky; In formulating an emulsified permanent wave solution, the oleic acid content should be kept as low as is possible to obtain a stable emulsion.

It seems that most permanent wave solution troubles arise from the fact that the emulsion persists in separating. And to make a stable permanent wave emulsion is no easy task, usually requiring much experimentation and shelf testing. There are a number of emulsifiable oils on the market now which give a stable emulsion in alkaline mixtures without requiring binders and so forth. The use of from one to three per cent. of such an oil will give a good creamy-white emulsion. All that is necessary is to pour the determined amount of emulsifiable oil into the cold permanent wave solution and to stir the mixture. No heating is required.

Next to emulsion separation, flocculation is the largest bug-a-boo. Flocculation is usually caused by the formation of iron and aluminum hydroxide impurities. The use of C. P. chemicals will generally remedy this bad feature and distilled water should always be employed. Sometimes, if a perfume is used, the alkaline mixture will precipitate certain elements of the perfume. An alkali—fast perfume will correct this.

To speed up the waving action, stronger concentrations of ammonium hydroxide and alkali salts will be necessary.

Recently a number of companies marketing permanent wave solutions have been using proteins because of their close resemblance to hair-structure. Cystine, another protacid component of human hair, is likewise being employed.

Various amines are replacing part of the ammonium hydroxide in waving solutions. The most successful of these has been mono-ethanol-amine. This chemical is less viscous than tri-ethanol-amine and much more volatile.

Another promising amine is a new compound called morpholine. It is an amine having a ring structure and a boiling point around 130. Morpholine forms addition compounds with organic acids and is so loosely attached to these compounds that it detaches itself and evaporates when exposed to air. Thus morpholine-fatty-acid-compounds form emulsions which are water soluble at first. However, as the morpholine evaporates the emulsion changes to an insoluble type, leaving an oil layer behind which cannot be washed off with water.

As morpoline is alkaline, it can be used to replace some of the ammonium hydroxide in waving solutions. It must be remembered that the use of this compound is still in the experimental stage. A formula containing morpholine is given below:

Morpholine	6.0
Potassium sulphite	1.5
Ammonium carbonate	2.5
Sulphonated castor	1.0
Water	89.0

An experimental formula using mono-ethanol-amine is as follows:

Mono-ethanol-amine	6.0
Potassium sulphite	1.5
Potassium carbonate	1.5
Borax	0.5
Ammonium carbonate	2.5
Sulphonated castor	1.0
Water distilled	87.0

A conventional formula is listed below:

Ammonium carbonate	2.0
Potassium carbonate	1.4
Potassium sulphite	2.5
Ammonium hydroxide spgr., 0.900	3.25
Sulphonated castor	1.0
Distilled water	90.0

Any of the above types of permanent waving solutions may be emulsified by the addition of from one to two per cent. of an emulsifiable oil made especially for this purpose. About ten per cent. of alcohol will cause the solution to dry more rapidly.

During the last ten years the permanent wave solution has progressed from a simple borax-ammonia solution to a quite involved mixture containing from five to six ingredients. Emulsions entering the field have likewise complicated matters, and with these complications have risen numerous problems. Often, too, the reasons for using certain chemicals in preference to others may puzzle the layman. This article, I believe, will serve in part to clarify some of these reasons, and to acquaint many with the newer developments which are constantly being made in the field of the permanent wave solution.

F.D.A. and Sterile Bandages

(*Continued from page 193*)

In making this campaign F. D. A. is stated by Mr. Campbell to have the cooperation of the Federal Trade Commission. In this connection attention may be called to a complaint issued by the F. T. C. some time ago against Johnson & Johnson, New Brunswick, New Jersey. The complaint referred to certain advertisements which the Commission stated were misleading and deceptive in that they suggested to users of surgical dressing products of unknown make or which are manufactured by other than well-known and extensively advertised organizations that the users run grave risks of infecting wounds or cuts upon which such dressings are used. The Commission charged this advertising constituted an unwarranted disparagement of the merchandise of competitors, who, the Commission said, manufacture first-aid and surgical dressing products that are equal in antiseptic properties to and are as safe and in as sanitary condition when opened for use as the Johnson L Johnson product.

In the Division of Pharmacology, F. D. A. has been mapping out a tentative program of wide interest. Although this division has dropped its studies of the toxicity of spray residues by reason of provisions in congressional appropriation bills transferring that work to the Public Health Service, yet there is plenty of ground

(*Continued on page 223*)

URINARY ANTISEPTICS

By M. A. LESSER

THE ideal urinary antiseptic has yet to be developed. In spite of the recent improved preparations there are still several factors which must be overcome before a perfect product can be available. In the usual sense, a urinary antiseptic is a substance which when given by mouth or intravenously, is capable of killing bacteria in the urinary tract, and capable of preventing or decreasing infections of that group of organs. There are, in addition many substances which may be applied directly to the infected areas of the tract. Indeed, many of the substances given internally are employed in this way as well. Here, however, emphasis will be given to those substances and combinations which are given orally.

An ideal urinary antiseptic should be chemically stable, non-toxic and non-irritating to the urinary tract; most of it should be eliminated by the kidneys in sufficient concentration to give a local antiseptic action and at such a rate that a continuous action is provided; it should have an antiseptic action in high dilutions in urine of any reaction, and it should be suitable for oral administration.[1]

Pyelitis, cystitis, urethritis, prostatitis or any other infection of the urinary tract usually requires a urinary antiseptic. Pyelitis is an inflammation of the pelvis of the kidney which often involves other essential parts of the organ. Cystitis, symptomized by frequent and painful urination, is an infection of the bladder. Urethritis is a diseased condition of the urethra, while prostatitis, a fairly common condition of older men, is caused by inflammation of the prostate, the gland surrounding the neck of the bladder and the urethra. Urinary antiseptics have proven of value in the treatment of gonorrhea in the male and female. Escherichia coli, the colon bacillus, is considered the causative organism in about 75% of the cases of urinary infections. Less frequently found are the streptococci, the staphylocci and the gonococcus. Typhoid, paratyphoid and tuberculosis bacilli have also been found in infected urine. Moor and Brown report the presence of the pneumonia diplococcus in about 30% of the cases they studied.[2]

Methenamine (U.S.P.), one of the earlier urinary antiseptics, was introduced in 1890 by Nicholaier. It is still very popular with urologists. Chemically, methenamine is hexamethylenetetramine, with the formula $(CH_2)_6N_4$ and is a condensation product of ammonia and formaldehyde. It appears as small colorless crystals, quite soluble and without disagreeable odor or taste. Methenamine obtains antiseptic action by liberation of formaldehyde, in acid fluids. The optimal pH is below 5.6. Acid sodium phosphate or ammonium chloride is recommended as a urinary acidifier. When the urine is alkaline, formaldehyde is not liberated and the drug therefore ineffective. According to the A.M.A., its greatest value is as a prophylactic against infection in catheterization and in operations in the urinary tract.[3] Overdoses may cause diarrhea and in some cases may produce renal irritations, as shown by blood and albumin in the urine or urticaria, a condition better known as hives. Discontinuing the medication usually ends these symptoms.

The organic dyes are well represented in the drugs used to render the urinary tract sterile. The most important of these is the acridine dye, acriflavine and the azo dye, Pyridium. Acriflavine (U.S.P.), discovered by Ehrlich in 1902, was first suggested as a urinary antiseptic in 1924 by Davis and usually is prepared as neutral acriflavine or as a hydrochloride. They both occur as brownish-red, odorless powders, both being very soluble in water, the neutral base is not as soluble in alcohol as the hydrochloride. Acriflavine is usually given in the form of enteric coated tablets which pass through the stomach intact and disintegrate in the intestines. Acriflavine is unique among urinary antiseptics in that it is effective only in alkaline urine. Sodium bicarbonate is used to alkalize the urine. According to Davis and Scharp its disadvantage is that it produces nausea and catharsis in a fair proportion of the cases.[4] E. W. Assinder of England, who reports on almost 5,000 cases treated with acriflavine, believes that oral administration of the drug is less effective than the intravenous method. He finds that such a method of treatment gives the most immediate effects

and that the uretheral discharge of gonorrhea usually stops after seven to ten days. He finds acriflavine very helpful in clearing up cystitis.[5] Acriflavine is also valuable as an antiseptic for direct application to other types of infections, as well as for the urinary tract. Acriflavine however, has the disadvantage of staining.

Pyridium the trade-marked name for phenylazo-alpha-alpha-diamino-pyridine mono-hydrochloride, is a dark red crystalline powder slowly soluble in cold water but quickly soluble in boiling water and in alcohol, glycerine and petrolatum. It is effective in either alkaline or acid urine, being more effective in acid urine against the infecting organisms, which may be staphylococcus, streptococcus, gonococcus and the colon bacillus. Pyridium is capable of penetration into the tissues of the urinary tract and is not considered toxic or irritating when given in therapeutic dosages. Pyridium should not be used in conjunction with mercury-containing compounds, since it frees the metal from these compounds, nor should it be used with silver or sulfur compounds or mineral acids. Some individuals are intolerant of its oral administration and suffer from headaches, nausea, dizziness and colic. Pyridium solutions, usually of 1% strength, are used for local application to wounds, ulcers and infected surfaces. A 0.3% solution is recommended for irrigations.

In 1931 Clark and Helmholz developed the ketogenic diet, an undeniably effective means of rendering the urine bacteriostatic and bactericidal. This ketogenic diet depends upon two factors for its success, the acidification of the urine to pH 5.5 or less, and the formation of beta-hydroxybuteric acid in concentration of 0.5% or more. Ammonium chloride, in doses of 2 grams three times a day in enteric coated tablets is often used to bring the urine down to the desired acidity.[6] A low carbohydrate diet, rich in fats provides ketone bodies, diacetic acid, acetone and beta-hydroxybutyric acid. The latter is the most important. The pH and the quantity of the acid produced must be checked daily. Asterberg and Helmholz devised rapid methods for these determinations. They recommend that filter paper of a good grade be soaked in a 0.04% aqueous solution of chlorphenol red and then be dried. When dry the paper is yellow. When dipped in urine of pH 5.5 or less, the color remains unchanged. At pH over 5.5 the paper turns red, and at pH of just 5.5 the paper may have a slight orange tint. This test is valuable for use with other types of non-coloring antiseptics. The test may be modified by adding one drop of the same indicator to twenty drops of the fresh urine. If the color is unchanged the acidity is at or below pH 5.4. The quantity of beta-hydroxybutyric acid is determined by a modification of the Rothera test, using sodium nitroprusside. When this regimen is successful, the bacilluria is cleared in from ten to fourteen days as may be shown by negative cultures. When upon microscopic examination of the urine, there are no bacteria present for three successive days, the diet is discontinued. Not all cases can, however, produce the desired quantity of the beta-hydroxybutyric acid. There appears to be a definite correlation between the pH and the acid production. Another factor is the production of acetone and diacetic acid at the same time. There is a certain element of danger in the accumulation of ketone bodies in the blood, and later in the urine, caused by the induced incomplete metabolism of the proteins and fat of the diet. The diet is not always applicable however, it is contra-indicated in persons who are weak, emaciated or who have renal stones. The diet, too, is expensive and requires careful measuring and supervision. Meals consisting mainly of cream, eggs, milk, butter and bacon, become not only monotonous but actually nauseating.

The success of the ketogenic diet led Rosenheim[8] to search for a substance which would give all the benefits of the diet without its disadvantages. Such a substance could be used to replace the diet if it were non-toxic, and were excreted unchanged in the urine. Mandelic acid was found to be the most suitable substance. The acid crystalizes as colorless needles, has the formula $C_6H_5.CHOH.COOH$, and is soluble in six parts of cold water and very soluble in hot water. The bactericidal power of the mandelic acid is directly proportional to the urinary acidity. When the pH is 5.0 a concentration of only 0.25% of mandelic acid is bactericidal for most organisms. If the pH is 5.3 a concentration of 0.5% is needed for the same effect, at pH 5.7, 1% of the acid must be present for desired results. High concentrations however are prone to be irritating. Helmholz and Osterberger[9] who made these determinations find that, as in the case of beta-hydroxybutyric acid produced by the ketogenic diet, the lower the pH, the lower the concentration of mandelic acid needed to secure the optimal bacteria killing effects.

The usual adult daily dosage of mandelic acid is twelve grams, divided into four doses of 3 grams each. Since the acid is a stomach irritant, sodium bicarbonate is used as a buffer, or the sodium salt is employed. When the sodium salt is used, ammonium chloride is given to acidify the urine, the dose, depending on the case, being between 4 and 8 grams per day. Using ammonium mandelate makes it possible to reduce the amount of urinary acidifier needed. If the urine does not reach the desired pH, nitrohydrochloric acid may be given, or the patient may be placed on a ketogenic diet or a high acid ash diet. The restriction of the fluid intake to 1200 cc. or less is considered important. The following are two typical mandelic acid prescriptions, as recommended to the medical profession:

I

Mandelic acid	48.0 grams
Sodium Bicarbonate	25.6 "
Flavoring Syrup	20.00 cc.
Distilled water	480.00 cc.

Sig. 30 cc.—4 times daily

II

Sodium Mandelate	50 grams
Syrup of Orange	20 cc.
Water	480 cc.

Sig. 30 cc. in water—4 times daily

It can be seen that both of these preparations provide the requisite twelve grams of mandelic acid per day.

The acidity of the urine must be checked daily and should be pH 5.5 or less. A recommended rapid method consists of adding five drops of methyl red solution (U.S.P. Test solution) to 2 cc. of urine. If a bright red color results the acidity is satisfactory. If, however, the urine remains yellow or becomes a brighter yellow, the alkalinity is too great to allow the mandelic acid to exert its desired action. When such a yellow, or an orange color is obtained, it is usually necessary to increase the dosage of ammonium chloride. Ammonium nitrate may be used instead of the chloride in the same doses. One manufacturer includes chlorphenol red test papers with his mandelate product so that the patient, under the doctor's direction, may make these acidity tests at home. This enables the intelligent patient to regulate his own dosage of acidifier.

Although there are methods for determining the mandelic acid concentration, the testing of the pH is considered a sufficient indication.

According to Braasch[10] if the fluid intake is restricted and the proper pH is maintained, the mandelic acid therapy will usually cause the urine to become bactericidal in two to three days and the bacteria will be eliminated in from six to seven days. He feels that it is seldom necessary to continue the treatment more than twelve or fourteen days. Indeed, it is not advisable that the drug be given for longer periods than twelve to fourteen days since it may cause renal irritation. If reinfection requires a repetition of the therapy, a lapse of one to two weeks is advocated. Braasch claims that mandelic acid therapy is effective in fully 80% of uncomplicated cases of urinary infections. There is sufficient clinical evidence, even in the short time since the introduction of the drug, to warrant this claim.

As is the case with all urinary antiseptics, relapses of urinary infection may occur, particularly in cases of chronic urinary infections. Further treatment usually clears up the condition.

Nausea and diarrhea may sometimes appear following mandelic acid therapy. Vomiting may occur. In rare instances the symptoms have been so distressing that the therapy had to be discontinued. Casts, albumin and blood may appear in the urine during the treatment, while generally not dangerous, is an indication for care in administering the drug. Mandelic acid is contraindicated in cases of renal insufficiency because in such cases not enough of the acid is excreted to render the urine bactericidal, and such therapy may cause further harm by producing acidosis, dizziness and dehydration. Mandelic acid may cause renal irritation in cases of nephritis.

Sometimes mandelic acid therapy fails because the desired acidity of the urine cannot be obtained by any known means. In other cases, failure may be due to the presence of tumors or residual urine in the tract.

Although mandelic acid does no more than the ketogenic diet, it is more convenient, better tolerated and less expensive to administer. Furthermore it may be used where the diet is contraindicated as in cases such as diabetes, bilary tract disturbances and in older people who cannot stand ketoses well. Furthermore, the drug produces a greater bacteriostatic action, per degree of acidity than does the diet. The use of the acid, while not restricting the patient's activity, does require careful regulation and frequent checking to prevent acidosis or kidney irritation and yet attain the desired degree of acidity for optimal action.

Many substances have been given orally and applied locally to render the urine sterile and to aid in the healing of infections of the urinary tract. Some are good, others are not. However, the most important of these antiseptics have been indicated. It must not be assumed however that the administration of a urinary antiseptic alone is responsible for clearing up infections. Some acute cases of urinary infections require preliminary administration of fluids and alkalis, as well as care and rest, before the antiseptic may be used. In all cases, detailed examination by the physician is essential, and accessory and underlying causes must be eliminated. Rest, care and diet play a part in all instances.

Mandelic acid is as close to the ideal urinary antiseptic as has yet been obtained. It must be remembered that there is still to be found an antiseptic effective in a urine of any acidity or alkalinity, and which is absolutely non-irritating.

At the American Medical Association Convention in Atlantic City in June of this year, Dr. H. F. Helmholz of the Mayo Clinic indicated that the comparatively new drug, sulfanilamide (para-aminobenzene sulfonamide) offered remarkable potentialities as a urinary antiseptic. His studies of the action of sulfanilamide on infections of the bladder and kidneys of children indicate that the drug is effective against the coli group of bacilli. This substance has received wide notice as a curative agent for many types of streptococci infections, but very recent work, including the above, indicates that sulfanilamide is not limited to this type of organism. Preliminary reports, some awaiting publication, given at the same convention, point to the use of the drug in clearing cases of gonorrhea, caused by a diplococcus. More clinical work has yet to be done and the action of the drug better understood before general dosage rules can be established, and the use of the drug particularized. Meanwhile, the developments in the use of sulfanilamide are worth watching.

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DRYERS AND DRYING

By FRANCIS CHILSON

Drying is one of the oldest operations in industry, but, like many other empirical operations, comparatively little was known about its scientific aspects until recently. The literature on drying is hardly more than fifty years old and it begins to appear that the diffusion theories on which this literature is based are open to serious question. The importance of drying in the manufacture of both cosmetic and drug products warrants, therefore, an examination of the problem and a consideration of the various means by which drying may be accomplished.

In the manufacture of cosmetics drying is limited usually to the process of making rouge cakes, color bases and similar products. In the manufacture of drugs the application of drying is more extensive and considerably more varied. It is applied to the dehydration of tablet granulations, pills, biological products, drug extracts—each of these groups constituting a different drying problem; and each, indeed, breaks down within itself into many minor drying problems.

It has been stated that the rate of drying is proportional to the velocity and volume of warm, dry air circulated within the drying chamber. This all inclusive formula applies only in a limited number of cases. In the drying of pills for example the drying rate is determined by capillary forces at work within the individual pill itself and bears no relation either to the velocity, volume or temperature of the surrounding air. Any attempt to hasten the drying rate by speeding up or elevating the temperature of the air flowing through the drying compartment, will case-harden the pills and seal up the moisture contained within them. When this happens trouble eventually occurs from cracked coatings because the capillary forces referred to above keep on working until equilibrium is established. Moisture will out.

Equilibrium is reached when the material contains a definite amount of moisture in relation to the humidity of the surrounding air. If the material is dried beyond this point it will re-absorb moisture until equilibrium is reached. Conversely when material contains more than this relative amount of moisture, it will continue to give off that moisture until equilibrium is reached. It is important to remember this, because failure to dry to the equilibrium point is one of the primary causes of cracked rouge cakes, and sticky and cracked coatings on pills. It is also for this reason that it is so difficult to package effervescents satisfactorily, because these materials being dried below the equilibrium point are therefore sensitive to moisture. If air is permitted to get at the product, enough moisture will be absorbed to restore equilibrium and the product will, perforce, break down.

As stated above drying is due to complex suction-capillary forces, which may be illustrated by pointing out that, when moisture is evaporated from the surface of a porous solid, and infinitesimal vacuum is created within the pores on the surface through the evacuation of that moisture, and when this occurs, a suction is created on the underlying strata of pores causing the moisture within the particle to come up into the surface pores. Repetition of this process results eventually in the more or less complete drying of the particle. Obviously, the rate at which drying will proceed, depends upon the porosity and the pore size of the particle, and herein lies the reason why one material will dry faster than another under the same external conditions.

All materials are porous but in widely varying degrees. Particles that are hard and regular in shape with comparatively few fissures or pores will dry at a more rapid rate than materials which are soft, porous and gummy. It is for this reason that drying equipment should be constructed with the highest degree of flexibility, so that drying conditions within the drier can be adjusted to suit the product.

It is in this respect that old fashioned drying rooms and drying cabinets are lamentably deficient. Usually they are not equipped to provide circulation other than

that induced by convection currents from steam coils. No means is provided for regulating and controlling temperatures, and if these driers are exhausted at all, they are exhausted by means of a constant speed fan, the capacity of which varies as the temperature within the drier. Such driers interfere with production because the drying time of a lot of material depends entirely upon outside conditions. On hot, humid days drying time will be doubled.

There are, however, some products to which heat cannot be applied at all. Pills, as stated above, cannot be hurried and require about a week for complete drying. The application of heat or an excessive amount of air will glaze or case-harden the surface of the pills so that they will not dry at all. Numerous gummy drug extracts require about the same length of time for the same reason, but some of them, podophyllin for example, will also darken upon exposure to elevated temperatures.

On the other hand, there are numerous drug extracts that cannot be dried in atmospheric driers, but will dry readily in vacuum driers. But even vacuum driers will not do for materials that darken upon exposure to heat, unless mechanical agitation is present, for the reason that the material lying on or near the heating surfaces will char. Now the difficulty of drying such materials at a uniform rate is apparent from the fact that drying time is influenced to such a great extent by outside conditions. On very humid days the circulating fan brings into the drier more moisture than it takes out.

Only on very large installations is it economical to attempt to control conditions in a heatless drier. But it can be done by conditioning the incoming air and regulating its humidity, volume and velocity through the use of a very complex set of controls. Dehumidifying units of the Lectrodryer type can be equipped with time relays to provide a definite humidity curve over as long a period as may be desired, and similar controls can be provided for the volume and velocity of the air passing through the drier.

It is sometimes possible to dry such products without heat under extremely high vacuum, but to do this requires a refrigerated condenser, and the material must be spread out in extremely thin layers on the trays. Vacuum drying depends upon the vaporization of the moisture in the particles, hence, a little heat must be supplied from some source. When steam or hot water cannot be used, then the heat must come from the heat of the material itself or it must be absorbed from the room through the shell of the drier. Fortunately, vacuum drying operations that will not permit the use of either low pressure steam or hot water are rarely encountered. Vacuum drying causes material to become porous and spongy due to the expansion of the moisture within the particles. This is an advantage in most cases but there are a few instances where sponginess is objectionable.

Contrary to popular impression, it is not the volume of air passing through the drier that accelerates the drying rate; it is the constant movement of the air. Good driers are designed so as to prevent the establishment of equilibrium by keeping the air within the drying compartments constantly in motion. Driers of the ejector type, for example, recirculate several times as much air within the drier as the exhaust fan is capable of handling.

When a variety of products are to be dried in the same drier, it is desirable to have each compartment individually controlled so that conditions can be adjusted for each different lot. Such driers have individual recirculating and exhaust fans for each compartment and individually controlled steam coils. When large quantities of a single material are handled, it is considerably less expensive, however, to use a single fan and a single steam coil for an entire battery of compartments. But even in this instance, each compartment should be separately exhausted so that partly dried lots are not influenced by wet lots which have just been put into the drier. Tunnel driers are very efficient because the warmed air travels from the driest truck to the wettest. Obviously this type of drier can only be applied to a single material.

The principal point in selecting a drier is to make sure that means is provided for uniform distribution of air over all the trays of material. In many driers this distribution can be effected by means of adjustable louvres. A second point is to make sure that adequate provision is made for constant movement of the air. High velocity is not necessary and may even be objectionable because of the danger of blowing the dried material, but the air in every part of each compartment should constantly be in motion. A third consideration is that provision should be made for controlling the exhaust from each compartment. The great danger in drier design is that some of the trays will be by-passed and that, hence, drying will not be uniform.

The manner of spreading the trays is important. For tablet granulations of the usual variety, the trays should be spread three quarters of an inch deep, each tray holding from one to six pounds of material depending upon its size. Wetter materials should be spread thinner. There should be not less than one and one half inches of space between the top of the filled tray and the bottom of the one above it.

Expanded metal trays are rigid and serviceable. When several materials are handled it is best to cover the trays with cheap newsprint. Cloth may be employed for installations where large quantities of a single material are handled.

Truck driers are always more desirable than shelf driers as the trucks afford a convenient means of handling the trays from the process equipment to the drier. Drying equipment is being improved very rapidly and we have a feeling that some very radical changes are due in the immediate future.

PERFUMES IN ALGIERS

By N. MAURI*

It would seem that the culture of perfume plants could be considerably expanded in Algiers, especially in the good lands of the sea coast and the plain at Mitidja. Nevertheless, after several experiments undertaken by colonists, commercial exploitation was practically abandoned. This failure was not due to technical or cultivation difficulties, but rather to economic conditions.

Certain plants such as jasmin, rose, andropogon, etc., require irrigation, which increased the cost of growing, irrigation water often being quite expensive. The labor too, although cheap, is of poor quality; it is thus not possible to compete with tropical countries with much rain or others such as Sicily, Spain, Italy, and Egypt in which labor for the same cost is much superior.

In addition, production in Algiers requires world consumption which has been greatly curtailed by limitations placed upon international trading. The United States has limited imports, Germany and Bulgaria restrict international payments, while Japan, Italy, Syria and Egypt produce cheaply.

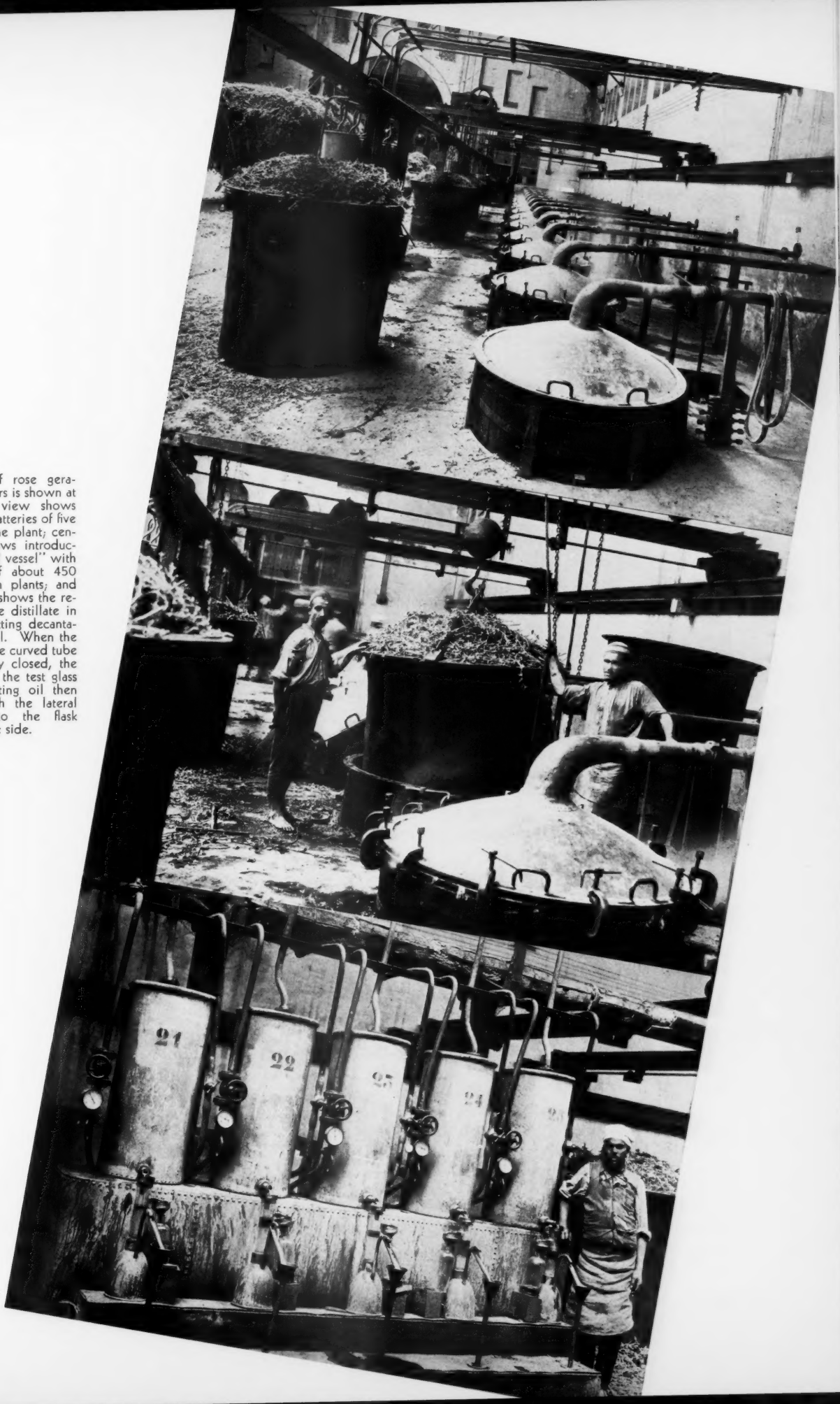
For these reasons, the only oils still being commercially produced are geranium, neroli, petitgrain, a little rose and jasmin. Jasmin oil itself is not produced, but a product called "natural perfume" obtained by washing the flowers with various solvents such as rectified gasoline, benzine, etc., and then evaporating the solvent in vacuum. When eucalyptus is being pruned the oil can be very readily extracted, but rational exploitation of this oil is practically impossible, because of Australian production. The most important and most varied exploitation of perfume plants in Algiers is being carried on by Chiris. Some of the oils obtained experimentally include citronella (Andropogon citriodora) cassis (Acacia Farnesiana), mint, tuberose, and other species.

Only four or five oils are now being commercially cultivated in Algiers, these being, in order of importance, geranium, neroli, petitgrain, eucalyptus, rose, and a little jasmin in the region of Chiffa.

Rose Geranium

This geranium which is really a Pelargonium, originally comes from South Africa. Imported into Europe in the seventeenth century, it was first distilled in France at Lyons in 1819. The first plantations were in the environs of Paris, but these were discontinued and it is only in the South of France, especially on the sea coast, that

*Chief Propagator of the Experimental Garden.



Distillation of rose geranium in Algiers is shown at right. Top view shows three of six batteries of five alambies in the plant; center view shows introduction of a "still vessel" with its charge of about 450 kilos of fresh plants; and bottom view shows the receiving of the distillate in vessels permitting decantation of the oil. When the opening of the curved tube is momentarily closed, the level rises in the test glass and the floating oil then flows through the lateral stopcock into the flask placed on the side.

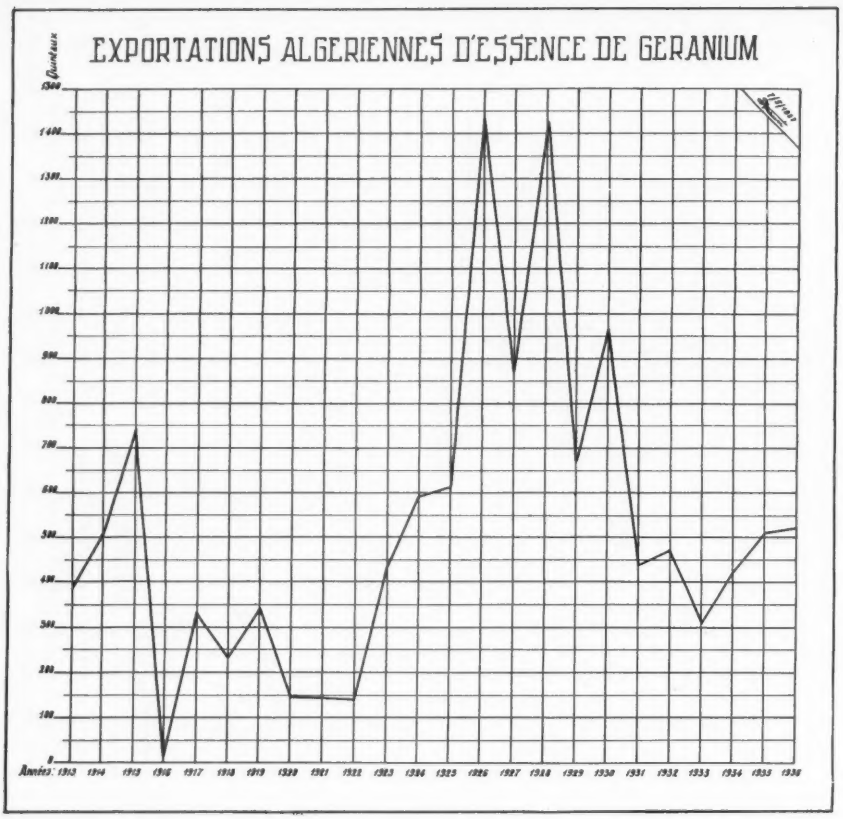


Chart at left shows the exports of geranium oil from Algiers, quintaux being quintels, and annees being years. Chart below shows the average annual exports by countries, based on 24 years from 1913 to 1936 inclusive. Countries given from left to right are: France, United States, Great Britain, Netherlands, Germany Japan, Morocco, Tunis, Brazil, Italy, Belgium, Spain, Roumania Sweden, Venezuela, Poland.

this culture is extensive. In Algiers, the first plantations date from 1852 (region of Cheragas).

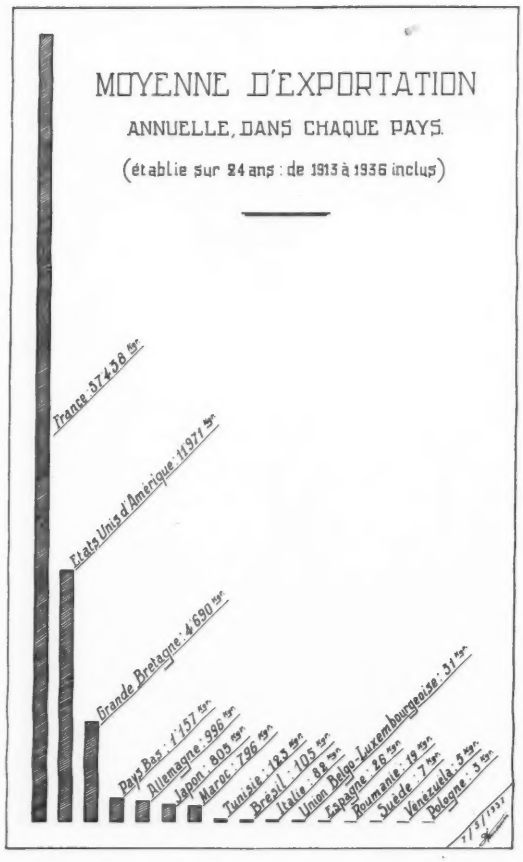
Only in the departments of Alger and Constantine is the culture of geranium very extensive. Almost none takes place in the department of Oran.

All exports are rigorously controlled by the Service de la Repression des Fraudes, which analyzes samples from each container in the chemical laboratories of the General Government.

According to certain authors, rose geranium if propogated only assexually over a long period of time will become degenerate. Nevertheless, slip cuttings still remain the only rational or even possible method of multiplication for this crossed variety.

The slips consist of the tips of branches at the end of the season, cut in lengths of twenty to twenty-two cm., almost completely stripped of leaves and forced in a nursery. This multiplication takes place from October to December. If the soil is favorable, cuttings can be made directly in place, as a small nursery. Planting is done at 30 to 35 cm. distances in rows 80 cm. apart.

For the harvest, the plants are cut a few centimeters above the ground, so that the stems bear two or three opened inflorescences. The harvest should take place during dry and hot weather. Under the influence of heat, the plant closes its stomata and losses of perfume by evaporation are less great. In general, the yield of oil from the first cutting is less than one part per thousand. This cutting generally takes place in April and May, the second cutting taking place in July and


MOYENNE D'EXPORTATION
ANNUELLE, DANS CHAQUE PAYS
(établie sur 24 ans : de 1913 à 1936 inclus)
France 57.438 tqx.
Etats Unis d'Amérique : 11.971 tqx.
Grande Bretagne : 4.690 tqx.
Pays Bas : 1.157 tqx.
Allemagne : 996 tqx.
Japon : 805 tqx.
Maroc : 796 tqx.
Tunisie : 183 tqx.
Brésil : 105 tqx.
Italie : 88 tqx.
Union Belgo-Luxembourgeoise : 31 tqx.
Espagne : 26 tqx.
Roumanie : 19 tqx.
Suède : 7 tqx.
Venezuela : 5 tqx.
Pologne : 3 tqx.

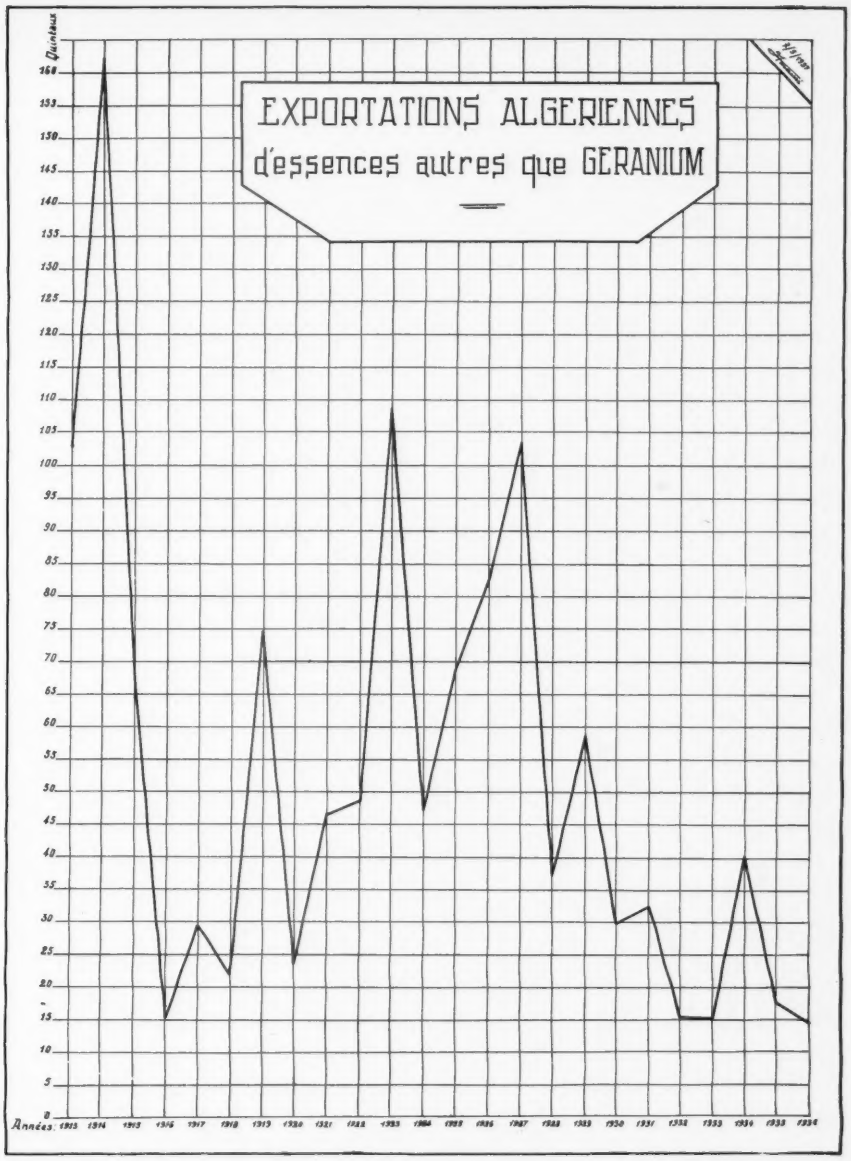


Chart at right shows exports from Algiers of oils other than geranium. Quintaux are quintels, and annees are years.

averaging somewhat more than one part to a thousand. In cool or irrigated soils, the third cutting can be done toward the end of October, but new shoots for the first harvest in the following year are retarded in their development. As a maximum, it is possible to make five cuttings in two years.

Yields are very variable according to the age of the plantation, the land, and the methods of cultivation. They vary from ten to forty kilos of oil per hectare. The average varies from 20 to 25 kilos. A well operated plantation can produce economically for five to eight years as a maximum. The first harvest can be made in the first year, but it is only in the second year that the plantation gives a maximum yield, which decreases from year to year thereafter.

Distillation is done by means of steam, in copper alembics, arranged in series as a battery. The steam loaded with oil condenses in a coil from which it is collected. Decantation and filtration with blotting paper complete the process. The oil is available commercially in tin plated cans and often in kegs.

Neroli is obtained by distilling the Bigaradier flowers. The variety "Bouquetier de Nice" is preferred because of the fineness of its perfume. Ordinary Bigaradier flowers also give an oil of good quality, but flowering is less and lasts for only a few days. For this reason, ordinary Bigardier flowers are separately harvested and distilled, but plantations of this plant are not made for the exploitation of neroli. The yield of oil (neroli) from Bigaradier flowers is about one part per thousand.

Contrary to certain erroneous interpretations the commercial product by this name comes from the distillation of leaves and green parts of Bigaradiers of all varieties. Operations are profitably made with waste from the cuttings from Bigaradier hedges. The yield of petitgrain averages two parts per thousand by weight, but its price is much less than that of neroli.

SIMPLIFIED LINES

In the old days, price lists of leading treatment line manufacturers contained some thousand items. Nowadays, these same lists contain from 100 to 250 items, and of this number perhaps ten or fifteen are fast movers. This leads to endless arguments and investigations aimed towards further simplification. Why not eliminate everything but the fifteen which sell in good volume? Why waste time, money and effort on items which do not pay for themselves, items which dealers will not stock and wholesalers will take only on consignment? Why add a continuous procession of new items when the line is already too big and why carry outmoded and antiquated preparations in the line for the scattered demands which exist and persist for them?

A blanket answer to all these questions exists in that intangible asset—good will. Having invested heavily of time and money in establishing a name and a reputation for knowing and having everything connected with beauty, no treatment line wants to endanger this investment by not having what the customer wants. The retailer, who has refused to stock the little-wanted item, becomes highly incensed if the wholesaler or manufacturer cannot supply it immediately, and the customer shifts to a highly advertised single product or, worse yet, shifts her allegiance to another treatment line.

The average treatment line has from nine to eighteen creams and from seven to thirteen lotions in the line. What with various sizes on most of these items, this accounts for some twenty-three to sixty-six items. The other three-quarters of the line consists of powders, make-up preparations, hand and nail preparations, bath preparations, hair preparations, men's preparations, perfumes, toilet waters and assorted miscellany sufficient to bring the total number of items up to the 100-250 referred to in the first paragraph.

That the treatment line has so many auxiliaries (about 75 per cent. of the whole) is due to several factors. In the first place, it seems advantageous to spread sales and advertising costs over as many products as possible and, at the same time, to give milady anything she asks for. In the second place, make-up, by its very nature, makes for numbers, because of the various shades which must be supplied. In the third place, the treatment line itself is likely to become static without occasional stimulants in the form of new products which can be shouted about and thus call attention to the line as a whole. These new products may follow the fashions and thus be dropped quietly after they have served the season and their purpose. Or they may take the form of new products based upon technical advances, in which case they almost certainly become fixtures in the line. But, as most treatment line manufacturers have found to their sorrow, once something is added to the line, there will always be some demand for it, and even after many years the old product must continue on the price-list along with the improved product, if good will and consumer acceptance is not to be endangered.

Hence for better or for worse, the treatment line must be big to start with and will tend to grow unless carefully pruned and trimmed. The tendency to enlarge the line is a powerful one, as witness the experience of a great many manufacturers who started with one product and then, as that became successful, decided that they could just as well sell two products, and soon three and four and finally a "line." Despite the fact that wholesalers and retailers may complain, treatment lines continue big and cannot be reduced into terms of their best sellers. Despite the fact that his own costs may, on the surface, seem to prescribe the same answer, the manufacturer knows through sad experience that he must defer to the demands of his customers and to the moves of competition.

SHALL WE ANSWER MACY?

By S. S. DWORKIN

"THE Consumer Will Now Decide"—this Macy-coined headline brings another important problem. Macy's attack on national advertised products is becoming the talk of the town if not of the country. But let us see if this excitement is more in the camps of the retailers and some of the manufacturers, or in the camps of the consumers. The consumer so far is not so conscious of the Macy publicity as many believe.

With liberal knowledge of the problems of distribution, advertising, and pricing, I will answer with confidence to a question put to me by hundreds of retailers and many manufacturers. Shall we answer Macy? My answer is "No." Many people are focusing the public mind on prices of nationally advertised products by the method of institutional advertising. Let me ask a question: "What percentage of the reading public would you expect to observe such an institutional ad-advertisement in a magazine or newspaper? Would ten per cent. be satisfactory? Or let me allow you a little greater percentage for maybe you would use a bathing beauty picture in the advertisements to attract increased attention. But will you give me the percentage of readers of any institutional copy.

In my mind the percentage of readers of such advertising would be very small. The fact of the matter is that institutional copy is used by large companies in the main as a means of supporting publications, or for political or other reasons. After reading notices in drug publications on the formation of some committees to answer Macy, the question comes to my mind as to what would be the answer. Would it be an appeal to the consumer,—to his heart or to his common sense—or would it be an invitation to collective study of the subject? Or shall we propagate opinions of prominent judges or governors on the subject? What difference will that make so far as Macy's advertising is concerned?

Let me illustrate, and I will take the liberty of quoting from a Macy advertisement in which two sodium perborates were compared. "This tin contains 462 grams of Macy's brand of sodium perborate powder, colored and flavored . . . it is made of pure ingredients

(Continued on page 223)

THE CONSUMER WILL NOW DECIDE . . .
Take your choice of these two packages of
SODIUM PERBORATE
(COLORED AND FLAVORED)
1 POUND
SODIUM Perborate
1 POUND
ITS FIXED RETAIL PRICE
for a can of approximately 1 lb.
$1.59
ITS RETAIL PRICE IN MACY'S
(which includes a fair profit to Macy's and to the manufacturer) for this can of approximately 1 lb. is
84 cents
SAVE WITH SAFETY
MACY'S
DRUGS

10¢
CROTZER'S
EFFERVESCENT
BROMO-MINT
WITH CAFFEINE
FOR SIMPLE
HEADACHES
PEPPERMINT FLAVORED
DOES NOT CONTAIN ACETANILID OR ASPIRIN
For OVER-INDULGENCE
SWEETENS the BREATH

MOTOROLL
SANITARY TISSUES
FOR THE
MODERN MOTORIST
A VACATION NECESSITY
NATIONAL CELLULOSE CORPORATION

SCHIAPARELLI

In addition to "Shocking" perfume recently introduced by Schiaparelli, five shades of "Shocking" face powder and lipstick are also being presented to the American market. The powder jar and the lipstick tops are both hand etched glass, boxed in a handsome brilliantly colored satin lined case which marks the packaging of "Shocking" perfume.

BUBBLE BATH

Usa-Foam Bubble Bath has added a De Luxe Liquid Concentrate to its line of bubble bath crystals. Bottle is frosted with bubbles deeply etched in the glass. This combines attractiveness with ease of handling with wet hands. Odors are Pine and Eau de Cologne, and a shaker-top is used.

DOROTHY HOLDEN

The Cramer Sales Agency, New York, is marketing the Dorothy Holden line, attractively packaged and consisting of all the products needed for skin care and make-up.

PETER CHARLES

Peter Charles Nail Polish comes in five shades—Chita, Coronet, Japana, Rustic, and Thistle. Boxes are black with white lettering and white bases. Bottles are labeled in white on black, and molded applicator caps are white plastic.

SHULTON

Shulton, Inc. announces a bath powder, talcum, and hand lotion in the same quality and delicate fragrance as the Shulton Cream of Almond soap. The hand lotion absorbs readily and is beneficial to the skin.

BROMO-MINT

Bromo-Mint Co., Selinsgrove, Pa., are one of the original merchandisers of single dose packages. Moisture-proof vials, easy to carry are used. Counter display carton contains twenty-four of the vials made by Kimble Glass Co.

CHAMBERLAIN

Chamberlain toiletries packages have been redesigned. Eau de Cologne Hair Tonic, Coconut Oil Shampoo, Olive Oil Brilliantine, Hair Oil, After Shaving Lotion, Brilliantine, and Lilac Vegetal are in a new style package especially designed by Owens-Illinois. Pleasing contours and, decorative features, produce a family of packages both pleasing and in good taste.

COTY

Coty has created a new "Demi Modele" presentation of L'Origan, Paris, Chypre, and Emeraude, perfumes, each a faithful replica of its de luxe presentation. The gleaming cut crystal flacons and richly decorative gift cases are now available in this more modestly priced edition.

MOTOROLL

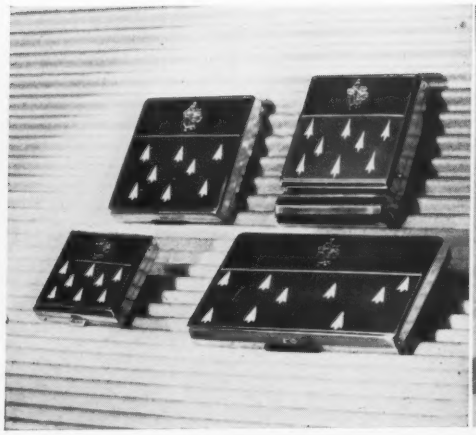
Motoroll is a package of three rolls of tissue offered by National Cellulose Corp., New York. The package will fit into the dash compartment of any automobile, and tissues can be used for cleaning hands, windshield, eyeglasses, and many other things.

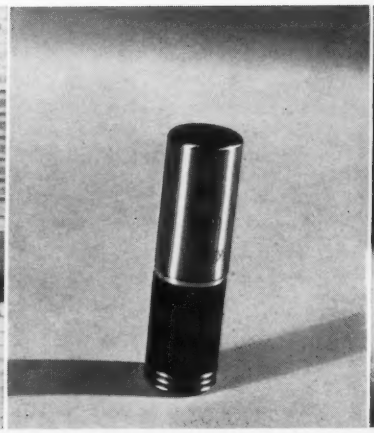
DODGE & OLCOTT

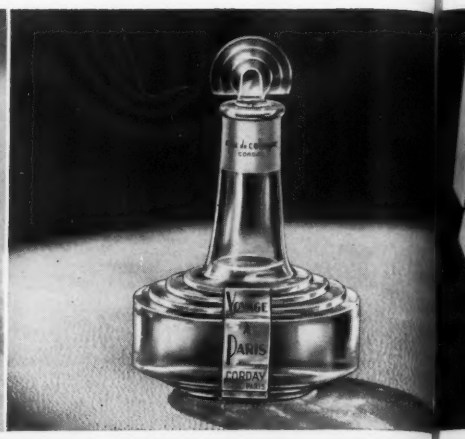
Dodge & Olcott recently adopted molded flange corks for their essential oil bottles. Beside smart appearance, advantages accrue from ease of opening, resealing, and clean pouring lip. Closures are by Dodge Cork Co.

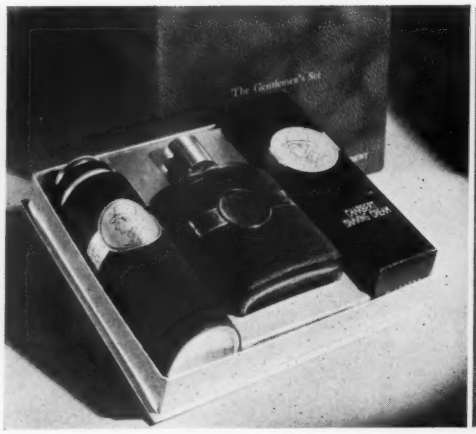
LENTHERIC

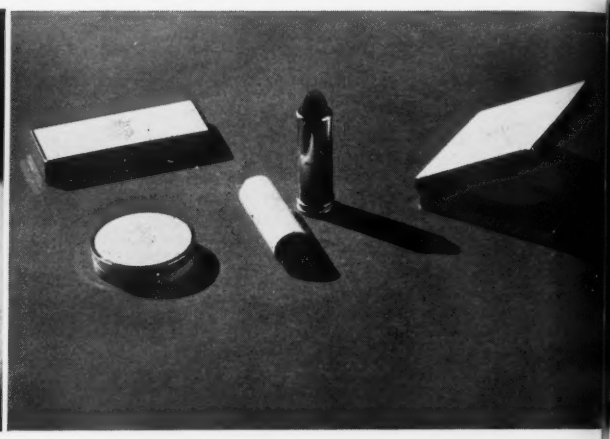
The demand for its carnation perfume is said by Lentheric to be responsible for this new ensemble of soap, bath powder and bouquet. Lentheric believes that this is peculiarly suited for year-'round use—fresh and buoyant in summer, spicy and piquant for cooler weather.



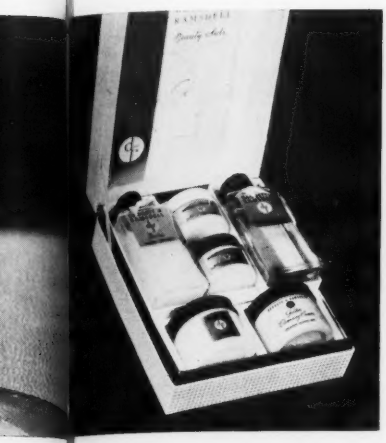



PARIS
CORDAY


The Gentlemen's Set



FACE CREAM
FACE TONIC
CREAM PASTELLE
FACE POWDER
HAND CREAM
VOLUMES
OF
BEAUTY
BY
Petalskin



YARDLEY

Sustaining the regal elegance of the year's coronation celebrations, Yardley has introduced a series of compacts: rouge, single, double, and triple. Ermine tails of white set off the simplicity of these gold compacts.

CHRISTY

The Christy cheek rouge stick is not a lipstick, but a cheek rouge put up in stick form. It is handy to carry, easy to apply, and is available in eight shades to harmonize with the eight Christy lipstick shades.

CORDAY

Corday has created an eau de Cologne to match the "Voyage á Paris" perfume. It has the same heady, exciting fragrance, remarkably strong and lasting. Its bottle is a replica of the perfume flask, but turned on its side and given a long neck.

DAGGETT & RAMSDELL

Daggett & Ramsdell's new kit is the Beautymaker. It contains hand lotion, skin tonic, protective cream, face powder, tissue cream, and golden cleansing cream and retails for $2.00.

PRINCE DE CHANY

Prince de Chany, New York, has just introduced the Princesse Chany Balancing Cream in two sizes, packaged in blue glass jars covered with gold foil.

CHARBERT

Parfums Charbert presents another attractive ensemble for men called the "Gentlemen's Set." It contains shaving cream, after shaving lotion and talcum. The flask and talcum container are covered with leather which comes in black or brown.

BONNE BELL

Bonne Bell is presenting its make-up in new metal cases in cream and gold, emblazoned with the new Bonne Bell crest. Included are rouge, double vanity, rouge compact, lipstick and mascara.

LO-BAX

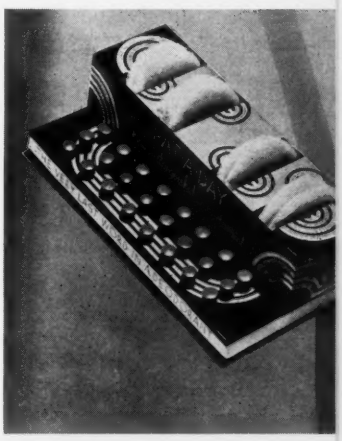
Molded plastic measuring spoons as a convenience feature and merchandising aid are used by Mathieson Alkali in selling "Lo-Bax," a concentrated bactericide. Photo courtesy Durez.

PAT-A-DAY

Pat-A-Day, New York, is introducing what it claims to be a new idea in deodorants. This 25c retail package contains 24 Pats (capsules) and 8 puffs. The powder content of one capsule is said to give protection from body odor for 24 hours.

PETALSKIN

Petalskin Toiletries offers a complete treatment kit which contains Cream Pastelle, face tonic, face powder, hand cream, and face cream. This ensemble contains an adequate fortnight's supply and when closed, the smart box represents five little volumes.



INA DE CRIS

Ina de Cris has added a bath oil to the line, in two delightful odors, rose geranium and royal lilac. The Ina de Cris bath oil softens water and scents the skin, leaving the body refreshed and invigorated.

MENNEN

The Mennen Co. has released to the trade its 1937 Gift Boxes for men. As was the case last year, there are two of these boxes, retailing respectively at $1.25 and $2.25. The box shown is the $1.25 retailer.

ROSE LAIRD

Rose Laird has just released her new deodorant, said to be free from grease, absolutely harmless (non-irritating), stainless and almost invisible after application. The deodorant "checks perspiration" while it controls the natural glandular oils in the fresh state and prevents rancidity.

MERCHANDISING NEWS

CONTRACEPTION AGAIN: Using a "direct-by-mail campaign to 174,863 physicians—THE ENTIRE MEDICAL PROFESSION" (the caps are Zonite's), Zonite Products Corp. has sampled Zonitors and advised doctors that "If you recommend vaginal suppositories to your patients when prescribing contraceptives to preserve life and protect health, we invite you to examine the Zonitor contained in the attached carton. Zonitors are not indicated in every case, but in any case which in your opinion is a proper one, they provide ease of application, cleanliness, positive germicidal and spermicidal action without irritation." Through salesmen and through retail drug advertising, druggists have been informed of this new approach to the physician and of the fact that the "feminine hygiene" angle will continue to be stressed to the consumer.

Also through retail drug advertising and salesmen, Holland-Rantos is promoting the "Koromex Method" under the headline, "Get in step with the A.M.A. Report." The Koromex method of course is Koromex diaphragm plus Koromex jelly, and the copy goes on to say that, "For the first time in history, the A.M.A. officially recommended the consideration of contraceptive devices. Over 50,000 physicians, 234 clinics and 140 hospitals have already used the Koromex method. Let the physicians in your neighborhood know that you can fill all of their Koromex prescriptions. Let us show you how you can become headquarters for the ethical business in your town."

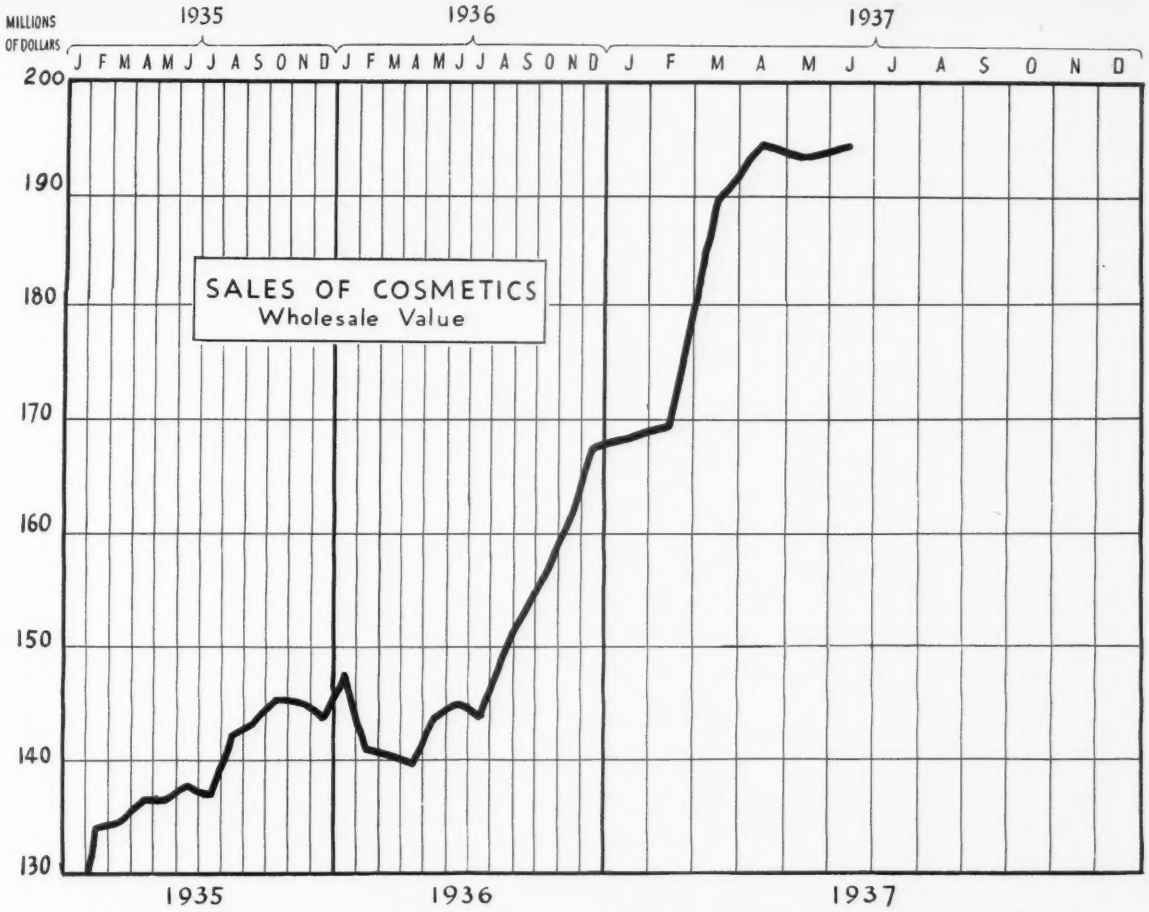
THE TREND IN COSMETICS: Talking to buyers of department stores, drug stores and the buying executives of leading chain store organizations one gains the impression that these merchandisers would prefer a temporary let down on the flow of novelties to permit them to consolidate their position with the consumer. Little is gained for counter turnover if stores are compelled to push novelties and duplicate items when, as a result, old established lines go into decay. What the toilet goods business needs at this time is not spearheads to break down consumer resistance, but a broadening at the base, with full exploitation of the possibilities of an existing market. This does not mean that buyers will not accept novelties of real merit. The test of acceptability, however, is that the novelty be one that promises new and additional business for the cosmetic counters.

It must be understood that this policy is not of the making of the stores but has its origin in a definite change in consumer's psychology. The consumer of the winter season 1937-1938 is not looking for variety but rather for completeness. Women are spending more time upon their appearance. The hair and feet have become subjects of daily attention in addition to the face and hands and there is a trend to greater detail.

The customer who heretofore was satisfied with the purchase of lipstick and mascara now adds eye shadow and eye brow pencil as a matter of course. A very considerable demand has developed for hand lotions, hand rouges, etc., in addition to the conventional nail enamels. Many stores have found it advisable to set up special foot cosmetic departments and women definitely have become regular customers for hair preparations, where the men have formerly dominated the demand.

Buyers state that they will this winter develop departments that have been neglected in the past and push the genuine appeal of cosmetic use rather than specialties. The tendency is to create multiple sales from all over the counter by the use of combination deals, treatment sales, etc. Price stipulations have tied the hands of the buyer in many instances to make best use of this situation. Buyers, therefore, point out that it will be up to the manufacturers to supply them with suitable deals. These deals to be useful should not merely tie together two products of the same manufacturer but should make a real opening for a further expansion of the consumers' demand for cosmetics.

Looking ahead to the Christmas season, buyers expect that trading-up in gift promotions will be general,



Wholesale sales of toilet preparations for the twelve months ended June 1937 were valued at $194,722,000. This represents an increase in the trend of 0.7 per cent. over the previous month and an increase of 33.7 per cent. over the same month of last year.

not only at the better but also at lower priced counters. Combination packages of perfume, powder, soap, etc. seem to hold the best promise for higher priced promotions with one of the articles taking the edge off the cost increase. Practically all stores in the bigger cities with access to outdoor sports facilities will continue their promotions of outdoor cosmetics all through the winter in an attempt to cash in on business developed during the summer season. The customers will be educated in the use of larger packages, with an all the year round use argument as the dominant sales note.

As a general forecast of business conditions buyers expect an active Christmas season, followed by an unusually large Southern resort season immediately after.

MARKETING COSMETICS IN ENGLAND: The following discussion of the marketing methods which Weil is adopting in England is quoted from "Shelf Appeal," an English publication, because of the light it throws upon typical English marketing methods. The prominence of the "hairdresser," presumably the equivalent of our "beauty shop," will at once appear significant to American readers.

Speaking specifically of Weil, the article states that, "Sales in England have hitherto been on a small scale, through department stores, organized by Crescent Preparations Co., Ltd. Their efforts having quadrupled sales since last year and proved that a good market exists in England for these high-priced perfumes, the English company plans to exploit a new channel of distribution, or, rather, to restore perfumery selling to its original channel—the hairdressing saloon.

"In France between 85 and 90% of the trade in perfumery passes through the hairdresser. But in this country the hairdresser gets not more than 10% of the perfumery business. Lively spirits in the trade have for some time been agitating for a drive to win this business back from the chemists, but they have not so far had much success in leavening the unprogressive lump of the majority.

"Because of the prestige of the name of Weil, however, the company's action may very well give the movement a stimulus. Parfums Weil don't expect to get general distribution through hairdressers, nor have they any intention of relinquishing their department store outlets. Probably 20% of the total number of

For Complete Package Appeal

SELECT A STYLISH, COLORFUL CLOSURE

TRIM, colorful metal caps give these modern "Hyglo" packages added eye-appeal to help create greater consumer interest. Two types of Armstrong's Metal Caps seal these packages. The "Wave Set" containers wear green-coated Armstrong's Single-Shell Metal Caps . . . and the "Cream" jars are sealed with white-coated Armstrong's Double-Shell Jar Covers. Both types add an additional note of style and color to the packages—both are sure-sealing and easy for consumers to remove and replace.

Armstrong's Metal Caps are available in a wide range of standard designs and colors to meet your packaging requirements. In addition, they may be lithographed in any number of colors with your product name or trademark to harmonize with the color scheme of your packages and emphasize product identity.

For full information, write today for your copy of Armstrong's new, color-illustrated catalog—"Better Seals for Better Sales." Armstrong Cork Products Company, Closure Division, 913 Arch Street, Lancaster, Pennsylvania.

★ ★ ★ ★ ★ ★ ★ ★ ★

Armstrong's METAL CAPS

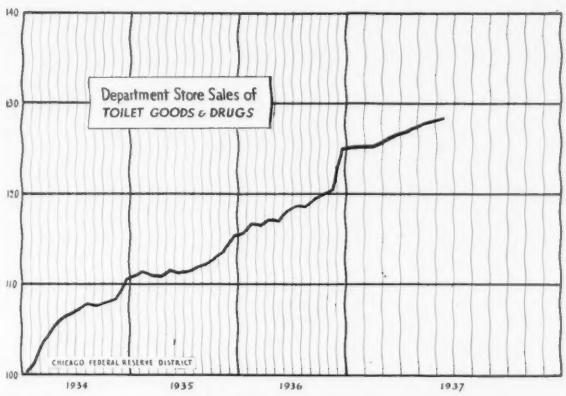
hairdressers can be regarded as potential retailers of such a perfume as *Weil.*

"Few new products or packs are likely to be introduced this season. One newcomer to England is, however, the Weil lipstick, imported from America and selling at 8s. 6d. Its turned brass case is large, severe, clean, and topped with a red lacquered cap. It comes in a two-piece box of cellulose acetate enabling the lipstick case to be seen but not handled, sealed with a red paper label. A smaller, moulded acetate container is also used for the lipstick refill, selling at 4s. 6d.

"The American manufacturer of the lipstick is to be played-up in display material as a sales point, for Parfums Weil believe that the American product enjoys prestige in this market owing to reputed difficulties of mysterious origin in the manufacture of lipsticks in England and on the Continent—even of American formulae.

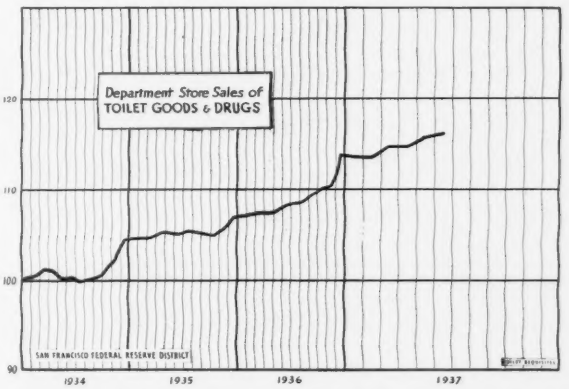
"American-style bottles and boxes will also be used for the perfumes, though in time some of these will be made in this country. The popularity of the elaborate presentation bottle among Englishwomen is another point of difference with French custom. Ninety per cent. of scent sold in France is put up in *modele simple* bottles without ornamentation. The Frenchwoman transfers the perfume to an atomizer and keeps it in a dark place. The Englishwoman probably buys, or receives as a gift, an ornate and much too large bottle, exposes it to sunlight on her dressing table, and uses it long after it has deteriorated."

DANDRUFF GERM: According to the advertising of Lambert Pharmacal, the germ that causes dandruff has been discovered and "easy, delightful treatments with Listerine bring quick relief and often complete cure." According to the advertising, the germ is *Pityrosporum ovale.*

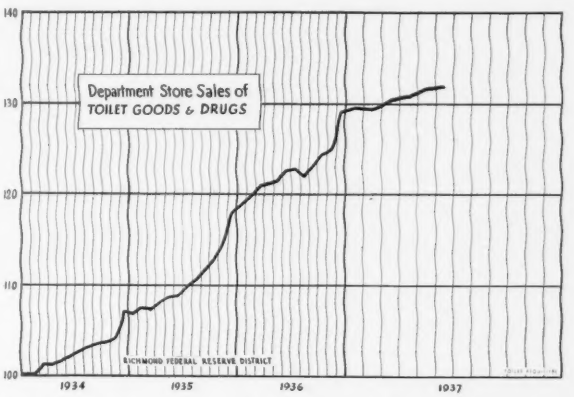


Sales of toilet goods and drugs by department stores in the Chicago Federal Reserve District were 6.2 per cent. greater in June 1937 than in the same month of the previous year. This corresponds to adjusted index numbers of 128.3 for June 1937, 127.7 for the preceding month, and 118.2 for June 1936.

Retail sales of toilet articles and drug sundries by department stores in the New York Federal Reserve District were 2.7 per cent. higher in June 1937 than in the same month of the previous year. This corresponds to adjusted index numbers of 115.0 for June 1937, 114.8 for May 1937 and 103.6 for June 1936.



Sales of toilet articles and drug sundries in Los Angeles were 6 per cent. greater in June 1937 than in the same month of the previous year, were 3 per cent. less in San Francisco, 19 per cent. greater in the Pacific Northwest, and averaged 4 per cent. greater for the San Francisco Federal Reserve District as a whole. The adjusted index numbers for the entire district were 116.3 for June 1937, 115.9 for May 1937, and 107.9 for June 1936.



Sales of toilet articles and preparations by department stores in Baltimore were 3.9 per cent. greater in June 1937 than in the same month of the preceding year, were one-half per cent. less in Washington and averaged 1.5 per cent. higher for the total Richmond Federal Reserve District. For the whole district the adjusted index was 131.7 for June 1937, 131.5 for May 1937, and 122.4 for June 1936.

PUT THE *Punch* OF RIDGELO-VARNISHED CARTONS IN GIFT OR EVERYDAY PACKAGES

1

OUR PRODUCT'S RIGHT, JACK. WHAT WORRIES ME IS THE CARTON. IT DOESN'T GET ACROSS.

YOU KNOW WE CAN'T AFFORD SHINY WRAPS AND FOUR OR FIVE COLORS, DICK. I'LL SEE OUR DESIGNER AND BOXMAKER, THOUGH.

2

SAY! NOT BAD AT ALL. ONLY TWO COLORS, THAT'S GREAT. BUT WHAT'S THIS EXPENSIVE LOOKING FINISH?

EXPENSIVE NOTHING! IT'S AN OVERPRINT GLOSS VARNISH, SMOOTH, CLEAN, LASTING.

3

JACK, YOUR EYE-CATCHING VARNISH HAS DONE THE TRICK. WE'RE DOUBLING ORDERS ON THIS NEW CARTON.

DON'T FORGET THAT FINISH IS MOISTURE-RESISTANT— A PROTECTIVE FILM, TOO.

4

TELL YOUR BOXMAKER FOR ME, I'M SATISFIED.

AND I'LL TELL HIM TO STICK TO RIDGELO CLAY COATED BOXBOARD, TO KEEP YOU THAT WAY.

Did you know that boxboard can be a bright white after varnishing? RIDGELO Clay Coating is now available in a special surface that makes all gloss finishes brighter These Becton-Dickinson cartons are fine, bright varnished packages. Samples showing their finish treatment will be sent on request.

Ridgelo
CLAY COATED

RIDGELO—"THE BEST KNOWN NAME IN BOXBOARD"

MADE AT RIDGFIELD, N. J. BY LOWE PAPER COMPANY

Representatives: W. P. Bennett & Son, Toronto • E. C. Collins, Baltimore • A. E. Kellogg, St. Louis • MacSim Bar Paper Co., Chicago • H. B. Royce, Detroit • Pacific Coast Distributors: Blake, Moffit & Towne • Zellerbach Paper Co.

PACKAGING NOTES

SINGLE DOSE CONTAINERS: Our record on the subject of single dose packages is a long and honorable one. 'Way back in February 1935 we were first to advocate the development of a container of this type for the packaging of the products of this industry. At succeeding intervals we continued to point out the opportunities existing for single-dose packages in this field, and to predict that a popular vogue for them was in the offing.

By now the popularity of this type of container is history. Bromo-Seltzer and Vitalis in single-dose containers have been dramatic successes. Practically every tube company is equipped to produce containers of this kind and many manufacturers, besides those mentioned, have marketed products in these containers with considerable success. Bond-Penn, again, points out that packaging of this type gives you a chance to "get dealers to display your product prominently on the counter as a 'reminder purchase' item."

The latest development is that a company, Unit Packages, Inc., has been formed for the sole and express purpose of packaging products in single-dose containers, confining its activities to the packaging of liquid products for the present.

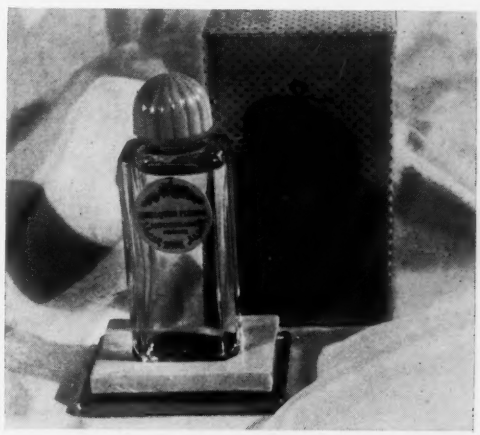
We're pretty much puffed up about this. Back in February of '35 it was just an idea we had. Today there is at least one company whose sole business is single-dose containers, and many other companies whose single-dose container business represents a large and increasing share of their volume.

LATEX TUBE CLOSURE: The Bond-Penn Tube Co. is currently featuring the advantages of a latex closure. This closure is not, as some might imagine, related to the capped end of the tube, but to the crimped end. After a tube is filled it is crimped at the end through which it was filled and Bond-Penn claims that a great deal of the dissatisfaction with tubed products is due to the fact that the product has either breathed or leaked through the crimped end. According to that company, "Almost all products packed in tubes are subject to appreciable contraction and expansion due to changes in temperature. In the ordinary tube this change in volume may be compensated for by breathing or leaking at the crimped end. If the tube breathes, the product may dry out. If the tube leaks, it becomes messy in use."

It is claimed that the latex closure on the crimped end gives a hermetical seal and makes the tube completely air tight.

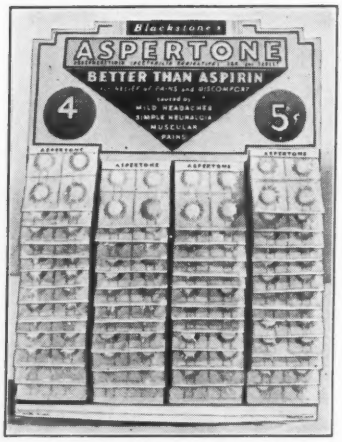
PERFUME CONTAINERS—Purse size: Here is Houbigant's most recent contribution to the cause of purse-size perfume containers. This plastic-capped flacon is said by the manufacturer to be absolutely leak-proof.

This brings up the outstanding problem in connection with perfume containers for the purse—that of



leakage. There is no denying the market but, unfortunately, there is no denying the fact that practically every woman you question about them, complains that they leak. Undeniably, there is a factor of carelessness which must be considered, but it cannot be denied that a fool-proof, leak-proof purse-size perfume container would be joy forever.

Merchandising! That's What Counts



In the old days when the doctor picked pills from bottles on his shelves there was little chance for proprietary wares. But today with our modern advertising, counter displays, windows and the like there's little excuse for failure to build good sales. Take Aspertone for example. The Ivers-Lee Company of Newark, N. J. have made possible a splendid counter card with their unique Sealtite Uni-Wrap units assembled in this striking display. Of course one of the secrets of this unusual idea is the use of Riegel's Diafane, an exceptionally transparent material which encloses each tablet, ready for convenient use, at surprisingly low cost. May we tell you about Diafane? Riegel Paper Corporation, 342 Madison Avenue, New York City.

DIAFANE

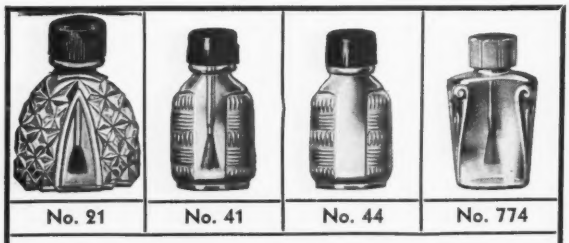
TRANSPARENT INEXPENSIVE

A Modern Wrap for Drug and Cosmetic Packaging

Diafane is a new transparent wrap, particularly adapted to drug and cosmetic packaging. It is highly moisture-proof, glossy, and is not affected by rapid changes in weather. Diafane may be sealed by heat or glue and works rapidly on standard packaging machinery or by hand. It will save you 40% of the cost of moisture-proof transparent cellulose.

Liberal Samples and Prices Promptly Furnished

Riegel Paper Corporation
342 Madison Avenue, New York, N. Y.



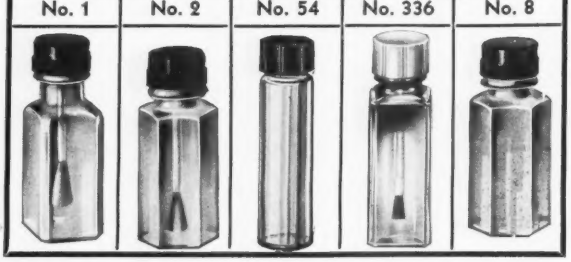
No. 21 | No. 41 | No. 44 | No. 774

Here is a representative assortment of our exclusive designs. These are made of the highest quality, crystal clear, glass bottles. The caps are bakelite in which we attach the correct liner and genuine quill camel hair brush or metal shank brush to order.

WRITE FOR SAMPLES AND PRICES

GLASS PRODUCTS CO.
GLASSWARE
VINELAND ● NEW JERSEY

ATLANTA, GA. Warren M. Curry 2895 Peachtree St.
NEW YORK, N. Y. L. A. Barber 1123 Broadway Room 301
ST. LOUIS, MO. Woodson Barnhart 200 So. Commercial Street



No. 1 | No. 2 | No. 54 | No. 336 | No. 8

ADVERTISING *Clippings*

—here's how to get More Business!

WE'LL send you newspaper clippings of the best merchandising ideas, as well as copy and layout suggestions from companies of your own type. Each customer chooses just what he wants. Let us put on your desk regularly ad-clippings showing what the leaders are doing; only one idea a month will more than pay for the service. We clip ads from several hundred cities.

If there is any time that Executives want ideas, it is right NOW. We operate the largest ad-clipping bureau in the country. All ads are selected by an experienced staff, no long term contract required.

Use coupon below to learn more about this valuable service and special short term trial offer. No obligation, of course.

Vincent Edwards & Co.
World's largest advertising service organization.
342 Madison Ave., New York City

Please tell us more about your service and special short term trial offer.

Name.....
Company.....
City.....

BUFFALO PUBLIC LIBRARY
DEPARTMENT OF TECHNOLOGY

Shall We Answer Macy?

(*Continued from page 211*)

. . . no magic, simply strict skill . . . made by a competent pharmaceutical house . . . is carefully made . . . to conform with the requirements for purity . . . set . . . by the U.S.P. XI . . . Macy's has this sound sodium perborate for those who want to save a matter of seventy-five cents."

Will the general public understand the writings of learned judges, or will they heed the sound of the saving of seventy-five cents on a purchase of one item? May I ask you to read the advertising in the "New York Times" book review for August 1, 1937, under the title "A Constructive Suggestion to Others"? Read it carefully; digest the contents; and then try to give yourself an honest, unbiased answer. We have had an experience with answering propogandas. Dr. Walter P. Pitkin, in an effort to combat the attack of Cosumers Research on industry, wrote an "order" book entitled "Let's Get What We Want." (Simon & Shuster, New York.)

He made a mess of it. Many others including our own retailers are not so particularly helpful with the letters which they are writing to publications and to Macy. Please understand me: I am not against price standardization, but I am against any demonstration or revolutionary action to change the natural trend of life. Macy is a reactionary, a spoiled baby, they are drunk with power, and glorified by the public and feared by us retailers and manufacturers. Such an octopus must be handled with silk gloves, and not with hysteria, or by individuals who express themselves wildly. I made a personal study of the subject by visiting a large number of retailers, and also by mailing out to a selected list of two hundred and fifty druggists the following letter:

"I am desirous of getting together information on actual experience which retail druggists may have had with customers who have spoken of the prices quoted by R. H. Macy & Co., in New York.

"What I would like to have from you would be a report on actual instances in which customers coming into your store have talked to you about your prices and the prices quoted by Macy on similar products or on the same products.

"I would rather not have you give me your opinion of the Macy competition, neither do I want any ballyhoo, philosophy or bunk regarding this situation. If you will tell me things that have really occured I can be of considerable help to you in working with others to formulate a policy to combat the Macy competition.

"You can answer on the back of this letter or you can use another sheet of paper. Furthermore, it is not necessary for you to sign your name if you do not desire.

"Hoping that you will do this for me and for the betterment of the retail drug business, I am"

So far I have only one reaction and that is that the consumer so far doesn't mention anything about this institutional advertising. Further, the consumers are definitely pleased to see uniform prices. It is distinct satisfaction to the buying public to deal locally. May I also remind you of a recent advertising campaign on behalf of a proprietary medicine? What a fiasco was that venture. I shall never forget. The oil of sassafras and oil of wintergreen bunk.

The mailman just delivered to me a copy of a national monthly drug journal. In the editorial comments of this issue we read the old line of talk of comparing the retail druggists with habadashery, hardware stores, florists. The only one left out was that old time favorite with the retailers—the plumbers. To me this is just playing to the gallery. All these editorials are playing the favorite national song. Speaking editorially in the same publication, the editor gives as one of the reasons for the high cost of distribution, the fact that there are too many different tooth pastes, and other items. Please swallow this. What a joke. And don't choke yourself. This question is too important and too deep. It requires a national body consisting of men on both sides of the question. Such men should have a thorough knowledge of the cost of distribution, and they should be selected not only from the drug industry, but from many other industries as well. The answer is to map out such a program, not to attack Macy, but to develop or to devise a sound policy for pricing merchandise to the retailer as well as to the consumer.

Speaking specifically to the drug industry, may I say that the trouble of the drug manufacturers does not lie in the processes or methods of manufacture. Neither are the formulas at fault, and certainly not the ingredients. The fault lies in the pricing of the products to the consumers and in the extravagant claims made in advertising copy. Retailers or manufacturers will not gain by answering Macy. In fact by such a step they would only focus attention on Macy advertising. They would create a good ground for more sales of substitutes and thus create a stronger feeling against the pharmacist who is already called a robber. They would confirm in many minds the saying "Dear as in a drug store, is a true saying." And most important of all they would create a general discussion on costs which might be misunderstood by the consumer.

F.D.A. and Sterile Bandages

(*Continued from page 200*)

to keep the division busy, according to its chief, Dr. H. O. Calvery. Outlining his tentative program for the year to Drug and Cosmetic Industry, Dr. Calvery said that his staff will continue bio-assays to determine the potency of such drugs as ergot, digitalis, pituitary, epinephrin, parathyroid, strophanthus, squill and the estrogenics.

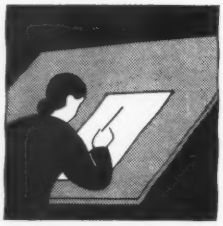
PACKAGING PROBLEMS SOLVED

Ritchie *likes* 'em tough! Many a hard-to-package product has come out of the Ritchie design department in a new and original package . . . one that dealers *want* to handle and display . . . one that consumers *prefer* to buy!

If you are an established manufacturer with packaging problems, let us show you some of these outstanding Ritchie packages. Learn how Ritchie's free design service and 71 years of packaging experience can help you!

IF WOMEN BUY YOUR PRODUCT —A WOMAN DESIGNS YOUR PACKAGE BY RITCHIE

Women make 85% of all retail purchases! That is why Ritchie makes use of feminine design talent in a field which is almost monopolized by men. This is one reason why Ritchie packages are so consistently successful in the great woman's market.



Set-up Paper Boxes—Fibre Cans

W. C. RITCHIE AND COMPANY

8847 BALTIMORE AVENUE · CHICAGO

New York *Philadelphia* *Detroit* *Cincinnati*
Los Angeles *St. Louis* *Minneapolis* *Ft. Wayne*

With Distinct Pleasure
We Announce the Publication of

How To Sell Cosmetics

by Edyth Thornton McLeod

This book was written to help those who have actual sales contacts with the consumer.

Manufacturers, department stores, chain store organizations, cosmetic salesgirls, beauty parlor operators, independent retailers of cosmetics, and beauty schools will find this book invaluable in their work.

It will more than pay for itself in the benefits which should result from its study and the application of the helpful, practical everyday selling help contained in it.

Single copy price $2.00
Five or more copies $1.50 each
Postage Prepaid

The Drug and Cosmetic Industry
101 W. 31st St. New York City

INTERNATIONAL INDUSTRIAL CHEMISTRY

By G. Haskell, Ph. Ch., Ph. C.

❖

Real and Artificial Essential Oils and Perfumery, with

250 RECIPES
For The Perfumery Industry

A book of vital importance for all workers in Chemistry — for Chemists, Perfumers, Soap Makers, Cosmetic Manufacturers, Druggists and all who desire to become fully expert in matters relating to Essential Oils and Perfumery.

❖

Best Recipes For The Perfumery Industry

Published in England
134 Pages — Price $4.00

❖

The Drug and Cosmetic Industry
101 West 31st St. *Book Dept.* New York, N. Y.

ADVERTISEMENT—*This entire page is a paid advertisement.* *Prepared Monthly by the U. S. Industrial Alcohol Co.*

ALCOHOL NEWS

August ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1937

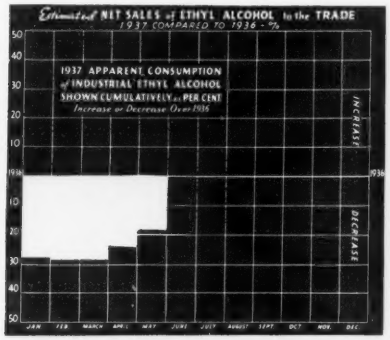
NEW FORMULA ON SEPT. 1 FOR RUBBING ALCOHOL

T. D. 4743 Provides For New S. D. 23-G Alcohol Formula

Excerpts from Treasury Decision 4743, approved June 24, 1937, are given below:

"On and after September 1, 1937 all rubbing alcohol compounds or preparations coming under the general classifications of rubbing alcohols must be manufactured with specially denatured alcohol Formula No. 23-G as revised herein, and they must contain 70 per cent absolute ethyl alcohol by volume, or as near 70 per cent as is practicable to be obtained by the ordinary commercial methods used for compounding alcohol preparations. In order that the finished products shall contain 70 per cent absolute ethyl alcohol by volume, the manufacturer should use 98.1 fluid ounces of specially denatured alcohol Formula No. 23-G

(*Continued on next page*)


Estimated NET SALES of ETHYL ALCOHOL to the TRADE
1937 COMPARED TO 1936 - %
1937 APPARENT CONSUMPTION of INDUSTRIAL ETHYL ALCOHOL SHOWN CUMULATIVELY in PER CENT
Increase or Decrease Over 1936
INCREASE
DECREASE
1936
50
40
30
20
10
JAN. FEB. MARCH APRIL MAY JUNE JULY AUGUST SEPT. OCT. NOV. DEC.

Apparent consumption of industrial ethyl alcohol from Jan. 1 to May 31, 1937, was 21,147,000 wine gallons. This is 19.8 per cent less than during the same period in 1936 when 26,346,000 wine gallons were consumed.

EXPECT NEW ADHESIVE TO AID LABEL PASTING

Development of an adhesive for fixing spot labels to tin, oily plate and lacquered or varnished surfaces—long trouble spots in labeling work—was announced recently.

The new product is expected to aid materially in overcoming crystallization and brittleness which, it is pointed out, frequently destroy permanent adhesion of labels, particularly in cold weather or in dry air. Another advantage claimed for this adhesive is protection against discoloration of labels and freedom from unpleasant odor.

While primarily developed for applying labels to metal containers, the new adhesive is asserted to be adaptable for holding labels to vitreous surfaces as well. The manufacturer adds that it can be used in hand or automatic machine labeling with coverage of better than 100,000 square inches per gallon.

USE ALCOHOL TO MAKE RUBBER

Ethyl alcohol is now being used as a raw material for synthetic rubber, according to reports from Italy. The Italians are experimenting with a view to obtaining the alcohol from rice waste.

STRONG PROMOTION CAMPAIGN FOR SUPER PYRO UNDER WAY

Transparencies of albino rats (above) and frog (right) made by McKesson & Robbins, Inc.

U.S.I. Expects 30% Increase In Sales, Or Six Million Users In 1937

Six million Super Pyro users in 1937 is the goal at which the U. S. Industrial Alcohol Co. is aiming with release of its latest advertising and sales program for its premium quality, popular-priced anti-freeze.

This marks the fifth year for Super Pyro. When first introduced in 1933, Super Pyro was sold to 800,000 motorists. With increasing expenditures for advertising and promotion in succeeding years, this number jumped to 4,600,000 in 1936, making a total of 11,000,000 users in four years.

The current program includes large expenditures for consumer advertising in six leading magazines and a two months' billboard schedule.

Although prices of most dealer products have been raised, the price of Super Pyro to dealers and consumers remains the same as in preceding years. The commissions for distributors, however, has been raised 1%, making a total of 25% return for sales of 54- and 5-gal. drums and 24% on gallon and quart cans.

The current price schedule for dealers (east of Rocky Mountains) is 54¢ per gallon in 54 gal. drums; 60¢ in 5 gal. and 1 gal. round cans; and 65¢ in 1 qt. round cans. The consumer price is 25¢ per quart or $1.00 per gal.

New Sound Picture Made

This year U.S.I. continues its policy of consigning stocks to carefully selected distributors. To assist distributor salesmen in signing up the most effective dealers, U.S.I. has released for the fourth consecutive year a talking movie picture of the newsreel type. Ed. Thorgersen, Fox Movietone News, is the commentator for the new picture.

There have been no changes in Super Pyro since it was introduced in 1933. It consists essentially of 200° proof denatured ethanol

(*Continued on next page*)

TRANSPARENT ANIMALS AID RICKETS STUDIES

Transparencies of entire animals were produced recently by a modified Spalteholz method in the laboratories of McKesson & Robbins, Inc., Bridgeport, Conn. It is believed that this is the first time that the effect of rickets on laboratory animals has been seen in the decalcification of the entire skeletal structure rather than in isolated rachitic tibiae.

The process takes about seven or eight weeks and consists of fixation of the tissues by a hardening agent, washing, and bleaching in hydrogen peroxide solution. This is followed by dehydration in successively stronger alcohol solutions, ending with absolute alcohol.

A special dye solution stains the skeletal structure a deeper color than less dense tissue. When the excess stain is removed, the specimen is made transparent by immersion in a medium with a refractive index, approaching that of animal tissue.

CHICAGO SUPER PYRO DISTRIBUTORS GATHER

Approximately 300 distributors and their salesmen in the Chicago territory gathered to hear an announcement of the 1937 Super Pyro campaign. A feature of the meeting was the latest Super Pyro movie with Fox Movietone's commentator. On the platform (left to right) is O. N. Davis, retiring division manager; J. W. Rudolph, his successor and L. S. Gillette, U.S.I. advertising manager.

ADVERTISEMENT—*This entire page is a paid advertisement.*

August ★ **ALCOHOL NEWS** ★ 1937

NEW DESENSITIZER FOR TEETH IS TRIED

Fillings may be made without pain in even the most sensitive teeth, according to the discoverer of a new formula for a dental anesthetic. Because both the paste and liquid forms in which the desensitizer is made contain thymol and ethyl aminobenzoate, it is called "thymol aminobenzoate."

The discovery of a new synthetic chemical made possible the paste form, according to the developer, who explained that this form is easier to manipulate and comes closer to the ideal. The paste contains 1 part of the new chemical "p-propyl m-cresol aminobenzoate." 3 parts of ethyl aminobenzoate and 1 part of thymol.

The formula for the liquid is given as 7 parts of thymol, 1 part of acetone and ethyl aminobenzoate to make a 25 percent solution.

Reporters were told that the new product is patented and that arrangements have been made for its manufacture and sale.

A formula for a "dehydrating and cleansing fluid," to be used before the anesthetic was also announced. This was given as simply 3 parts chloroform and 1 part acetone.

STRONG SUPER PYRO CAMPAIGN UNDER WAY

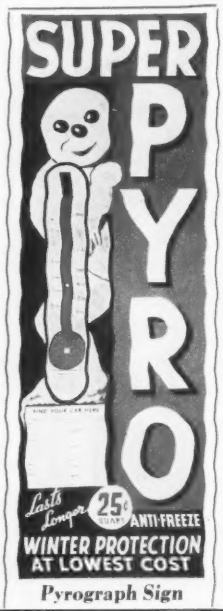
(*Continued from previous page*)

formulated with an exclusive, patented rust inhibitor which protects all six metals of the cooling system against rust, corrosion and electrolytic action. A special feature is a soluble oil which retards evaporation.

U.S.I.'s magazine campaign for 1937 includes schedules in the *Saturday Evening Post, Collier's, Life, Liberty, Country Gentleman* and *American Weekly*. Each magazine on the list will carry a minimum of three insertions, making a total of 70,000,000 advertisements reaching 16,000,000 readers.

This year U.S.I. continues to maintain its position as the pioneer and largest user of billboards in the anti-freeze field. An expanded campaign which comprises 10,000 boards in 200 cities and towns is being used.

Dealer material as in previous Super Pyro campaigns features a deluxe kit for dealers taking initial delivery of 80 gallons. A novel feature of this kit is the giant Pyrograph (right)—a special display sign which automatically computes the amount of Super Pyro needed for any car. Other materials in the deluxe dealer kit include a 3x5 feet weatherproof banner, pennants, leaflets, streamers and charts.



Pyrograph Sign

Medicinal Imports And Exports Gain In 1936

Medicinal imports and exports of the United States made substantial gains during 1936, according to World Trade Notes. Imports of pharmaceuticals and proprietary medicines, valued at $2,685,000 by the Commerce Department's Chemical Division, made a five-year record. Although biological imports increased from $1,327 to $4,272, they were still negligible in comparison to the $2,200,000 exports reported for 1936. Total sales of American medicinals abroad were valued at $14,393,000 for 1936 as against the 1935 figure of $12,199,000.

NEW FORMULA ON SEPT. 1 FOR RUBBING ALCOHOL

(*Continued from previous page*)

to which must be added ½ ounces of sucrose octa acetate, and then made up to 1 gallon with water.

Standard Formula for Rubbing Alcohol Compounds

Specially Denatured Alcohol
Formula No. 23-G.....98.1 Fluid ounces
Sucrose Octa Acetate..½ avoirdupois ounce
Water q.s. .....1 gallon

"The manufacturer of rubbing alcohol compounds may also add to the formula such other odorous constituents or medicaments as is desired, provided they are shown in the formula submitted for approval and that the finished product contains 70 per cent absolute alcohol by volume."

Formula for New 23-G Alcohol

"To every 100 gallons of ethyl alcohol add:
3.5 gallons of methyl propyl ketone
0.5 gallon of methyl isobutyl ketone"

Permittees must submit revised formulae and labels on Form 1479 A, in quadruplicate.

Dealers taking initial delivery of less than 80 gallons of Super Pyro are provided with smaller kits. All kits are shipped direct to dealers upon receipt of individual orders signed by distributors.

A more complete line of advertising helps for distributor salesmen has been provided for the 1937 campaign. Included are catalog sheets, broadsides, answerlogs, leaflets, order pads, etc.

The dealer selling program is already well under way and current orders, ahead of last year's, point to U.S.I.'s exceeding its increased quota.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

Preservation of water solutions and emulsions containing casein, glue, gelatin, gums, etc., is said to be simplified with two new preservatives. They are described as dry powders which can be incorporated as water, glycerin or alcohol solutions or in the form of dry powder. Reported tests indicate good protection against mildew, fermentation and mold growth. (**No. 1**)

U S I

Vibrating packer, recently developed for filling powder tablets and similar materials is reported to facilitate settling of products. The device is said to occupy an area of only about one foot square on any table. (**No. 2**)

U S I

To inhibit foaming in the manufacture of glue, casein, shellac, etc., a new product on the market will not interfere with other properties, according to the producer. It is also claimed, moreover, that the material eliminates specks, pinholes, etc., in finished goods. (**No. 3**)

U S I

An all-glass stirrer which permits stirring under vacuum or pressure without mercury seal, has been announced. The manufacturer reports that the fit between the glass shaft and tube is so precise, pressures over 60 mm of mercury may be used. (**No. 4**)

U S I

Low-cost resinous pitch with outstanding toughness and elasticity is reported to have been developed. Suggested uses are in wax blends, polishes, adhesives, low-priced molding compounds and rubber. Several grades are available: 80-95 deg. C.; 100-125 deg. C., and 135-150 deg. C. melting points. (**No. 5**)

U S I

Stabilized pyretheum dust concentrate in powder form was announced recently. The manufacturer guarantees a pyrethrin content of 2 per cent and easy miscibility with talc, sulphur, gypsum, diatomaceous earth, etc. (**No. 6**)

U S I

A new rubber-to-metal adhesive is said to adhere when hot or cold and will bond rubber to any metal (except bronze), glass, plastic, hard rubber, etc. It is cured by vulcanization. (**No. 7**)

U S I

Powder puffs can be embossed in color with the manufacturer's name or trade-mark by a process recently announced. The process, which was originally developed for other materials, is reported to give good results in the embossing of satin. (**No. 8**)

U S I

An adhesive for water-proofed as well as porous materials is said to result from the addition of a new solution to ordinary flour paste. According to the manufacturers of the solution, one ounce mixed with 1½-lbs. of flour paste makes an adhesive which gives an excellent bond on pyroxylin-coated and other water-proofed materials. (**No. 9**)

U.S. INDUSTRIAL ALCOHOL CO.

WORLD'S LARGEST PRODUCERS OF INDUSTRIAL ALCOHOL

ETHYL ALCOHOL

SPECIALLY DENATURED-*All Formulas* • COMPLETELY DENATURED-*All Formulas* • ANHYDROUS-*Denatured* • ABSOLUTE-*Pure*
SOLOX-*The General Solvent* • U. S. I. DENATURED ALCOHOL • SUPER PYRO *Anti-Freeze*

PURE (190 PROOF) TAX PAID—TAX FREE
U. S. I.—U. S. P.-*Ethyl* • WEBB'S-*Ethyl*

Executive Offices: 60 East 42nd Street, New York, N. Y. Branches in all Principal Cities.

NEWS

People

Bunting Awarded Degree

Dr. George A. Bunting was honored with the degree of Doctor of Science by Dr. Gilbert W. Mead, president of Washington College, Chestertown, Md., at the recent 155th commencement exercises of the college. Two years ago Governor Nice appointed Dr. Bunting a member of the Board of Visitors and Governors.

DR. BUNTING AND DR. MEAD

At the commencement in 1789, President Washington was made a Doctor of Laws by this College. He was one of the original contributors to the college and also gave permission to the institution to use his name. He also accepted a position on the Board of Visitors and Governors.

P. C. Magnus Serves

Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., has been made chairman of the Essential Oil, Drug, Chemical, Pharmaceutical and Related Groups of the Boy Scout Campaign Committee.

Squibb Advances Colgate

W. B. Colgate took up new duties in the professional products division of E. R. Squibb & Sons, New York, on July 15. For the past twelve years he has been representative of the professional service department at Squibb's Chicago office.

Davis Joins Mennen

Edward S. Davis has been made assistant sales manager of the Mennen Co., Newark, N. J. Mr. Davis was formerly in charge of special fabrics promotion for the United Cotton Products Co., New York.

Fritzsche Honors Miss Neary

Mary G. Neary, secretary to F. H. Leonhardt, president of Fritzsche Bros., New York, was given a luncheon at the Hotel New Yorker upon the completion of twenty-five years' service with the company. She was made a member of the company Quarter of a Century Club, and presented with a substantial government bond by the executives of the company and with a diamond-studded wrist watch by her fellow employees.

Webb to Europe

R. R. Webb, managing director of W. J. Bush & Co., Inc., sailed for Europe on July 24 aboard the Brittanic. He will visit the home offices of his company in London and will return in about two months.

Valli Attends Coty Meeting

C. C. Valli, managing director of Coty, Ltd., England, came to New York especially to attend the three day Coty sales convention held July 13, 14 and 15, at the Park Central Hotel. While here, Mr. Valli also visited the Canadian branch of the Coty organization. He returned to England the latter part of July.

Armour & Weckman Sail

Bernard R. Armour, president of the Heyden Chemical Corp. and F. William Weckman, secretary, are on an extended business trip in Europe.

Kammer Joins Van Ameringen

A. F. Kammer, long known in the cosmetic and perfume trade through his executive affiliation with the Carr-Lowrey Glass Co., joined van Ameringen-Haebler, Inc., as a vice-president on July 1. Mr. Kammer, who has been responsible for the creation of many of the attractive and modern packages used in the perfume and cosmetic industry, is spending considerable time in the factory and laboratories of van Ameringen-Haebler familiarizing himself with the products of the company.

A. F. KAMMER

Mr. Kammer, who is as ardent and able a golfer as ever, will devote his time principally to sales in the New York Metropolitan area.

Aromatic Products Names Johnson

Esler Johnson has been appointed Pacific Coast representative by Aromatic Products Inc., New York. His territory will include California, Oregon and Washington.

SURE-SEALING TOPPED CORKS

increase the sales-appeal of the modern package

WHEN you seal your product with an Armstrong's Embossed-Top Cork, you add packaging advantages to your container that help boost sales.

An Armstrong's Embossed-Top Cork forms a safe, secure seal that prevents leakage and protects product quality until the package is opened. This is due to the fact that these closures are manufactured from carefully selected, resilient corkwood and cut to assure a snug fit in the bottle neck.

And your customers value the convenience of an embossed-top cork. The hardwood top securely attached to each cork provides a handy grip for the fingers. Users can whisk the corks from containers in a jiffy. A simple twist removes an embossed-top cork . . . and another turn puts it back into the bottle neck to form a dependable reseal.

In addition to the foregoing advantages, Armstrong's Embossed-Top Corks add attractive decoration to your package. The hardwood tops may be embossed in a handsome two-tone effect with your product name or trade-mark.

Write today, for complete information, samples, and prices. Armstrong Cork Products Company, Closure Division, 913 Arch Street, Lancaster, Pennsylvania.

SEND FOR THIS NEW COLOR ILLUSTRATED CATALOG OF ARMSTRONG'S EMBOSSED-TOP CORKS AND OTHER CLOSURES

WRITE TODAY FOR YOUR FREE COPY OF "BETTER SEALS FOR BETTER SALES"

This new catalog contains full color illustrations and complete information concerning Armstrong's Embossed-Top Corks, Corks, Molded Caps, Metal Caps, Jar Covers, Applicators, and CEL-O-SEAL caps and bands. A copy is available free of charge to all recognized manufacturers of glass packaged merchandise.

Armstrong's EMBOSSED-TOP CORKS

Bogert Honored

Dr. Marston T. Bogert has been elected Honorary Fellow of the Royal Society, Scotland. Dr. Bogert, a past president of the American Chemical Society, has taught at Columbia University for forty-three years, being a full professor since 1904. For a number of years he was in charge of research into aromatic chemicals conducted under the fellowship of the American Manufacturers of Toilet Articles.

Owens-Illinois Appoints S. J. McGiveran Director of Advertising

Stanley J. McGiveran, formerly Assistant General Sales Manager of the Glass Container Division, Owens-Illinois Glass Co., has been appointed to the newly created position of Director of Advertising for the parent company.

Mr. McGiveran's appointment is in line with the organization of a parent company setup to work with major Owens-Illinois

S. J. McGIVERAN

subsidiaries and divisions in planning their advertising and publicity activities. These major divisions and subsidiaries include: Owens-Illinois Pacific Coast Co., Owens-Illinois Can Co., Libbey Glass Co., Owens-Illinois Industrial and Structural Products Division and the Owens-Illinois Glass Container Division with its numerous lines.

The new department will serve also to coordinate marketing policies and stimulate cooperation between the company's several selling units. T. K. Almroth, as Advertising Manager, will work with Mr. McGiveran in handling these activities in the enlarged field.

Clifford Joins Atlas

John C. Clifford has been appointed sales manager of the Atlas Distributing Co., Worcester, Mass. He was formerly with McKesson & Robbins.

Jane Bonner Tatham

Bauer & Black's baby products received the especial attention of the advertising manager, Arthur E. Tatham, with the birth of his second daughter, Jane Bonner Tatham, early in July.

Edyth Thornton McLeod Cosmetic Consultant

Edyth Thornton McLeod, for the past two years promotion specialist for the Associated Merchandising Corp., has resigned to become an independent consultant in cosmetic promotion under her own name. Her offices are located at 411 East 53 st., New York, and her services consist of cosmetic counsel to manufacturers on rebuilding, restyling, as well as creating cosmetic lines; while she will also act as independent specialist in presenting Beauty and Fashion shows in leading department stores.

Stevens Represents Molyneux

George A. Stevens has been appointed exclusive sales agent for Molyneux in the United States, with temporary headquarters at 41 N. Moore st., New York. He returned from France July 13 with the full line and plans to establish exclusive agencies on it in each city—even restricting it to just one store in New York. A new odor, "Royal," popularized by Captain Molyneux abroad during the Coronation, will be introduced into this country for the first time this Fall and an advertising campaign will be engaged in.

Bevernick Joins Prentiss

Richard A. Bevernick has become associated with R. J. Prentiss & Co., Inc. After an apprenticeship in the company's mills he will engage in sales work. Mr. Bevernick spent two years at the University of Minnesota and was graduated last June from the U. S. Naval Academy. He is the son of A. W. Bevernick, western sales representative for R. J. Prentiss & Co., Inc.

Monsanto Names Hawn V. P.

R. J. Hawn, a director of manufacture who has several Monsanto plants under his supervision, has been elected vice-president of Monsanto Chemical Co. Mr. Hawn was a vice-president of Swann Chemical Co. prior to its absorption by Monsanto in 1935.

Solvay Advances Stauff

Solvay Sales Corp. has appointed John Stauff director of sales. Mr. Stauff, who has been associated with the company since 1921 succeeds W. B. Blair who has been made director of research and planning. L. B. Gordon has been made assistant director of sales. He was formerly western sales manager for the company.

Zimmer Returns

B. F. Zimmer, vice-president of Fritzsche Bros., returned July 13 from a trip to Europe which took him to Italy, France, Germany and England. He left immediately upon his arrival for his headquarters in Chicago.

Beyer Named Dreyer V. P.

Frey J. Beyer, who has been connected with P. R. Dreyer Inc., since December 1934 in the capacity of salesman, has been appointed vice-president of the company. Mr. Beyer is well known to the trade, having been connected with the essential oil industry since 1916.

Miss Rowlands Publicity Director

Eleanor Rowlands of Rowlands Associates, New York, is now handling the publicity for the Sunclyme division of the National Toilet Co., Paris, Tenn. Miss Rowlands has also been appointed publicity director for the National Association of Chain Drug Stores.

Centaur Advances Thomas

Harold B. Thomas has been named president of the Centaur Co., New York, succeeding the late Frank A. Blair. Since

H. B. THOMAS

1931 Mr. Thomas has been vice-president of the company in charge of sales and advertising. Prior to that he was associated with the Kolynos Co. He is vice-chairman of the board of the Association of National Advertisers and a member of the board of the Drug and Chemical Section of the New York Board of Trade.

Schanzenbach Appoints Gordon

H. F. Gordon, advertising manager of J. Schanzenbach & Co., Inc., New York, national distributors of cosmetics and beauty supplies for beauty shops, has been appointed sales promotion manager and will now be in charge of sales promotion and advertising activities.

Kiefer Appoints Jenz

Charles F. Jenz has been appointed Pacific Coast representative for the Karl Kiefer Machine Co. Mr. Jenz, who succeeds Peter Jorgensen, is a former resident of California although he has for some time been working out of the Cincinnati office of the company. He will make his headquarters at 433 California st., San Francisco.

Our

GREATEST ASSET

is your confidence

Therefore our sincere aim is to continuously merit the high trust that you, our customers place in us.

Our every effort is made to hold Kolmar products and service over and above the most stringent requirements.

We believe that our own steady growth, plus the resale records of our customers, present important evidence of the uniformity and fine quality of Kolmar products.

Kolmar laboratories

MILWAUKEE • • • HOBOKEN

Makers of: Smooth-as-Silk Dry Rouge, Permindel Lipstick, Kolmar Serrate Puffs and other make-up products in bulk or in complete packages.

These Kolmar Representatives will be pleased to serve you:

Norman Kole
Chicago, Ill.
11-108 Merchandise Mart

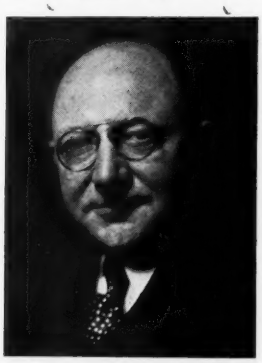
Warren Curry
Atlanta, Ga.
2895 Peachtree Road

R. G. F. Byington
Los Angeles, Calif.
1709 West 8th St., Room 504

Curren's Hundredth Birthday

The illustrious vice-president of the Norwich Pharmacal company, Mr. Turner Currens, formerly of Peoria, Illinois, celebrated his hundredth birthday by throwing a grand party at his home in Allendale, New Jersey. Most of us had not suspected his real age but somebody looked up the records in Peoria and obtained the evidence. "A long time ago, said Mr. Currens, "I found out that people always give you something on birthdays, so the thing to do is to have them often. Last year I celebrated my eleventh birthday but nobody took it seriously."

The "presents" this time included a duck, a sheep (female), and a couple of goats. The sheep was presented by Oliver Benedict as a sentimental reminder of Turners' early days as a sheep herder in Peoria. Some people say that when Tur-



TURNER F. CURRENS

ner saw the sheep his eyes flames with a reminiscent light, but this is only hearsay and the camera did not record it.

Because Turner has no kids of his own, Guy Marsters presented him with a couple of young goats as a delicate testimony of Turner's indigence. Personally, we think that Mr. Marsters may have been a bit premature because no one can predict what Mr. Currens will accomplish in his second century.

The duck was presented by Francis Chilson who felt that a centenarian ought to have a pet with which he could keep pace.

The party was a huge success. Scores of Turners' friends from all branches of the drug industry turned up to congratulate him on jumping his first hurdle and to offer advice as to how to take the next.

To symbolize his interest in live stock Mr. Currens has authorized us to announce the formation of THE TURNER CURREN'S HOME FOR INDIGANT ANIMALS. From now on Mr. Currens plans to devote his time to the protection of cast-off animals. So if you have any monkeys, rabbits, skunks, jackasses or zebras, just send them along. Mr. Currens wishes us to inform you, however, that because of space limitations he will be unable to accommodate any animal heavier than an elephant or taller than a giraffe. Snakes over fourteen feet long will not be accepted unless they are pink.

Schindl in Chicago

Pierre Harang, sales manager of the Houbigant Sales Corp., New York, announces that Karl Schindl will now cover the Chicago territory. Mr. Schindl formerly covered the New York territory for Houbigant.

Mathieson Appoints Mannheim

R. M. Mannheim has been made district manager, the New England district by the Mathieson Alkali Works. Mr. Mannheim formerly covered the New Jersey territory for Mathieson. He will be succeeded in that position by J. R. Harrison who has been covering the metropolitan New York area. Donald G. Ross who has been a member of the New York office staff will now have charge of sales in the metropolitan New York area.

Schwarz Celebrates 25 Years

Samuel Schwarz, president of the Dutch concern, Polak & Schwarz, Ltd., Zaandam, Holland, celebrated his twenty-fifth an-

SAMUEL SCHWARZ

niversary with the company on the first of July of this year. Mr. Schwarz is extremely active in the interests of his firm and looks forward to still greater things in the next quarter century which he spends in the company's interest.

Columbia Appoints Clark

Vernon L. Clark has been made district manager at St. Louis for the Columbia Alkali Corp. He has been connected with the Alkali business in the Middle West since 1929. He was the founder of the Clark Chemical Co., Indianapolis, which is a distributor for Columbia products. Before he joined the Columbia Alkali Corp., Mr. Clark severed his connection withtheClark Chemical Co.

Limbert Appoints Ahles

J. N. Limbert & Co., Philadelphia, has appointed Harry J. Ahles its Mid-Western representative. Mr. Ahles has offices at 350 N. Clark St., Chicago.

Fisk Sells Federal Interest

Herbert Fisk has sold his interest in the Federal Pharmacal Co. to M. M. McAuley, who is now president of the company. Mr. McAuley had been vice-president of the company since its inception.

Armstrong Cork Appointments

Howard E. Wright has been appointed branch manager of the Armstrong Cork Co.'s Closure Division office at 295 Fifth ave., New York. Mr. Wright joined Armstrong in 1895 and for many years has been senior salesman in the New York district. He replaces Howard W. Knapp who is retiring from active service after 46 years in the employ of the company. Mr. Knapp joined the company in 1891 and was for several years superintendent of the Williamsburg Cork Co., a former Arm-

HOWARD E. WRIGHT

strong subsidiary. He later joined Truslow & Co., where he was office manager and he served in a similar capacity in Armstrong's New York office. He was appointed district manager of the Closure Division in New York in 1929 which assignment he filled until his retirement.

A. M. Cavin, of the Detroit Closure Division office, who took up sales training July 12, will replace W. E. Slonaker whose resignation from the company was effective July 1. P. Duane Berry, who joined Armstrong after graduation from Washington and Lee University and who has been in training for the past several months, has joined the sales force of the Closure Division's Philadelphia branch office.

Ownes-Illinois Promotes

Fisher N. Davis, formerly manager of Philadelphia branch of Owens-Illinois Glass Co. has been promoted to the staff of the general sales manager in the Toledo headquarters of the company.

Wesley P. Adams, formerly Eastern Prescription Sales Manager of Owens-Illinois, with offices in New York, has been advanced to Assistant Sales Manager of the Prescription Ware division in Toledo.

RICE, KAOLIN, COLLOIDAL STARCH, ZINC OXIDE

Powder Bases

Three outstanding products representing the ULTIMATE for use in a high-grade face powder. Well known for their adherent properties, extreme fineness and lightness of bulk. . . . . *Samples on Request, Gladly*

ORBIS

PRODUCTS CORPORATION

215 PEARL STREET, NEW YORK - FACTORY & LABORATORY, NEWARK, N.J.

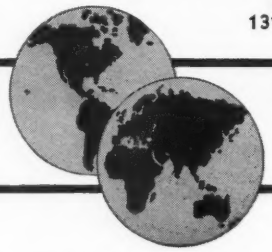
CHICAGO
844 Rush St.

PHILADELPHIA
253 Bourse Bldg.

BOSTON
131 State Street

LOS ANGELES
742 So. Hill St.

Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Thymol	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



Companies

Florasynth in Canada

Louis A. Rosett, President, and Dr. William Lakritz, Secretary, of Florasynth Laboratories, Inc., are shown below at the Chicago airport returning to New York after attending the conventions of

the Flavoring Extract Mfgs. Association and the National Confectioners' Association in Chicago.

Prior to his Chicago visit, Mr. Rosett had been to Canada, merging the Company's Canadian interests and securing a Dominion Charter.

Canadian activities will henceforth be conducted by Florasynth Laboratories (Canada) Ltd., with executive offices and manufacturing facilities at 29 St. Paul St. East, Montreal.

Stein-Brill Changes Name

Stein-Brill corporation, New York, has changed its name to the Brill Equipment Corporation. There is no change in management. The company has opened a St. Louis office and warehouse in the Mart Building, and is now in a position to serve its eastern and middle western clients to better advantage.

Both offices of the company will specialize in machinery and equipment for manufacturers of chemicals, pharmaceuticals, food products, plastics, rubber, paper, and for refiners of oils. The St. Louis branch is also representing in the St. Louis territory several nationally known machinery manufacturers, and display rooms are maintained in the Mart Building for this purpose.

Commercial Solvents Joins A. N. A.

Commercial Solvents Corp. has been elected to membership in the Association of National Advertisers and will be represented by Robert J. Flood.

Lydia Pinkham Case Settled

A decision has been handed down by the Massachusetts Supreme Court which means a victory for the three grandsons of Lydia E. Pinkham in the family battle for control of the Lydia E. Pinkham Medicine Co. which has been going on for the past thirty-seven years. The decision favored a petition of the company for an injunction to prevent its treasurer, Mrs. Aroline P. Gove, only daughter of the founder, and its assistant treasurer, Miss Lydia P. Gove, Mrs. Gove's daughter, from interfering in the business. The court also ruled that the company, of which Arthur W. Pinkham, grandson of the founder, is president was entitled to damages from the Goves. This decision will prevent the Goves from prosecuting a receivership suit they brought against the company in Maine, where it is incorporated, over a year ago.

The matter of advertising still remains unsettled. For the past few months, the advertising of the company has been divided between Erwin, Wasey & Co., the agency favored by the Pinkhams, and the Northeastern Advertising Agency, Inc., a Pinkham company subsidiary, which was favored by the Goves. The grandsons are now suing to dissolve the Northeastern agency and, if they are successful, all of the company's advertising will in future be placed through Erwin, Wasey.

New Fritzsche Labels

Fritzsche Brothers, Inc., has adopted re-styled labels for its entire line of essential oils and aromatic chemicals. The new labels are printed in black and red against a golden yellow scroll background embodying the name "Fritzsche Brothers, Inc." This combination of color and design provides protection against imitation and harmonizes with the light-proof brown bottles in which most of the Fritzsche products are packed. The company has also issued a very complete new wholesale price-list, copies of which are available upon request.

Cramer Featuring New Line

The E. S. Cramer Sales Agency, with offices and showrooms at 501 Fifth Avenue, New York, is featuring a new line of cosmetics. The line consisting of cleansing cream, finishing cream, foundation lotion, astringent lotion, skin freshener, liquefying cream, texture cream, face powder, lipsticks, rouge, eyeshadow and mascara, bears the trade name "Dorothy Holden."

New Australian Plant

A new factory is being built at Pyrmont, near Sydney, Australia, by the Amalgamated Drug & Cosmetic Corp. The modern dust-proof plant will be devoted to the manufacture of cosmetics and medicaments.

The House of Pine

All rights, trade-marks, formulae, special packaging and special processes of manufacturing of the House of Pine and Vienna Woods Pine Products formerly distributed by Elene of Vienna, Inc. have been purchased by D. L. Jenkins. The business formerly conducted by Elene of Vienna, Inc. has likewise passed to D. L. Jenkins.

A new corporation has been created under the original name, House of Pine, Inc., which will continue to manufacture and sell all of the products bearing the name House of Pine and trade-mark Vienna Woods. New and larger offices have been established at 521 Fifth Ave., New York.

New French Perfume House

A new association, Syndicat de Produits Synthetiques pour la Parfumerie, has been formed in France by the manufacturers of synthetic perfume materials. The president of the new association is Louis Roure of Roure Bertrand Fils & Justin Dupont. Offices have been taken at 44 rue la Boetie, Paris.

Snowtex Sales to Lacquers, Inc.

Lacquers Inc., manufacturers of nail polish and lacquers, have been granted the exclusive sales rights on Snowtex. The marketing research was carried on by T. Gostage Leek of 230 Park Ave., New York. National and foreign distribution is now in the hands of Lacquers, Inc., and an intensive campaign is under way to establish a wide market for this product. W. Van Ostrom, president of Lacquers, Inc., calls attention to the fact that his nation-wide sales organization expects to have real success in promoting the sale of Snowtex.

Carlyle, Inc. Organized

Carlyle, Inc., has been organized with offices and showrooms at 3424 Sunset Boulevard, Hollywood, California. J. Mark Clarke is president of the organization; S. L. Bottenwiser, vice-president and director of sales; Glenn Y. Williamson, secretary-treasurer, and Stephen E. Riley, chief chemist and production manager. The Carlyle holiday line of merchandise will be ready in the near future.

Goldschmidt Changes in Canada

The Th. Goldschmidt Corp. announces a change in Canadian agents to Chas. Tennant & Co., Ltd., 372 Bay St., Toronto. This company is now handling their line of emulsifiers and preservatives, and carry complete stocks of these products.

Emfo Corp. Formed

E. M. Fougera and J. G. Harrison have organized the Emfo Corp. for the manufacture of cosmetics, lotions, pharmaceuticals and a treatment line. Mr. Fougera is president and secretary and Mr. Harrison, vice-president and treasurer, of the new company which has offices and laboratories at 404 Fourth ave., New York.

Mr. Fougera was formerly chief chemist and production manager for the Owl Drug Co.'s cosmetic plant and was at one time chemist for the Walgreen Co., Chicago. He is the grandson of E. Fougera, who founded E. Fougera & Co. in 1849, and has to his credit the creation of the Antoine de Paris line.

Mr. Harrison was the founder of the Harrison Refining Co. which was recently acquired by the American Cyanamid & Chemical Co.

Mrs. Thiele Undergoes Operation

Mrs. Fred C. Thiele is recovering from an operation performed in the Christ Hospital, Jersey City.

McInnis's Lose Appendices

James McInnis, of Commercial Solvents Corp. was recently operated upon for appendicitis at the North County Community Hospital, Glen Cove, N. Y. Mrs. McInnis had her appendix removed a few weeks before.

Naugatuck Price List

Naugatuck Aromatics is the name of a price list and catalogue issued by Naugatuck Chemical, Naugatuck, Conn. It is illustrated by several interesting photographs of essential oil production and lists the basic perfume materials produced at the Naugatuck plant as well as those produced by the foreign companies which Naugatuck represents in this country—Bruno Court, Grasse, France, Laboratoires Louis Bornard, Neuilly-sur-Seine, France, and Compagnie Africaine des Plantes a Parfum, Casablanca, Morocco. Copies of the catalogue are available upon request.

DuPont Perfume Booklet

E. I. du Pont de Nemours & Co. has issued an informative and highly interesting booklet of sixteen pages with the title "Synthetics Bring New Era in Perfumes." The booklet is divided into four sections—"Synthetics Bring New Era in Perfumes," "The Making of Perfumes," "Synthetic Perfumes in Soaps and Cosmetics," and "Perfume Usage in Industrial Products and Processes."

Cortizas Opens in New York

M. Cortizas Co., Philadelphia, has opened a branch in New York at 122 Greenwich st. The new branch is under the direction of John E. de Redon.

Constance Bennett Opens Laboratory

Constance Bennett, screen star, plans to manufacture a line of cosmetics under her own name. A laboratory has been opened at 7263 Melrose Ave., Hollywood, and the products will be distributed through drug, department and specialty stores.

National Can Names V. P.'s

At a meeting of the board of directors of National Can Corp., H. L. Buschman was elected vice-president in charge of the

H. L. BUSCHMAN

A. G. HOPKINS

manufacturing division and A. G. Hopkins was elected vice-president in charge of the equipment division. Both Mr. Buschman and Mr. Hopkins have been with National Can Corp. and its predecessors for many years.

Harriet Hubbard Ayer Changes

C. H. Lafferrandre is now covering Georgia and Florida for Harriet Hubbard Ayer, succeeding R. D. Leeds. M. J. Knight will cover the Chicago territory, succeeding R. S. Edmonds, who resigned recently.

Fidelwood Opens Offices

Fidelwood, Inc., has opened showrooms and offices at 551 Fifth ave., New York. The line which was recently introduced in the United States through leading stores, is made by the House of Fragrance, Bermuda.

Royale Merges with Buscham

The Royale Co. has merged with Buscham Inc. The new company, which will be known as Buscham Inc., will manufacture compacts, dresser sets and other novelties under the trade name Royale. The plant will be located at Irvington, N. J. and the showroom and offices are at 392 Fifth ave., New York. The president of the new company is George A. Harris and Roy M. Bloom is vice-president and general sales manager.

Murray Oil Fatty Acids

The Murray Oil Products Co., has established a fatty acid department to supply all technical grades of vegetable and animal fatty acids. The department will be under the direction of Dr. Erich Schuelke who has had a great deal of experience in the manufacture and industrial application of fatty acids. As in the past, Dr. Schuelke will continue to manufacture and distribute esters and other derivatives of fatty acids through Colloid Chemical Laboratories.

Watkins Moves in Chicago

J. R. Watkins Co., Winona, Minn. and Newark, N. J., has moved its Chicago offices and warehouse to larger quarters at 2220 North Western ave. The general manager of the Chicago branch is Otto Pfeiffer.

Chew Peppermint Distributor

Michigan Peppermint Growers, Inc., St. Johns, which has a membership of a number of growers in that district, has appointed John A. Chew, Inc., New York, exclusive Eastern distributor for the peppermint oil distilled by the members.

F.W.D.A. Meeting

In preparation for its twenty-second annual meeting, to be held September 21 to 24 at the Hotel Cleveland, Cleveland, Ohio, the Federal Wholesale Druggists' Association has appointed Ralph Ferichs, of the Mutual Drug Co., as local secretary in charge of arrangements, reservations, and other matters. E. T. T. Williams has been appointed chairman of the entertainment committee.

In accordance with the association's custom the first day of the convention will be devoted to joint sessions of active (wholesaler) and associate (manufacturer) members. These sessions will be under the direction of the chairman of the associate membership group, Turner F. Currens, of the Norwich Pharmacal Co.

N. A. R. D. Seal Asked

One of the questions that will be discussed at the convention of the National Association of Retail Druggists is the possibility of a seal to be placed on products approved by the association.

THE IDEAL OF BUILDING *a better product*

"If a man can write a better book, preach a better sermon, or make a better mouse-trap, than his neighbor, though he builds his house in the woods, the world will make a beaten path to his door."—EMERSON

PRESENT-DAY merchandising does not permit the modesty of sitting and waiting for the world to come to you. But the ideal of building maximum quality into a product has lost none of its importance.

Few businesses can survive without repeat sales. And no matter how great the fanfare of sales and advertising, only the quality and performance of the product itself, can determine the percentage of repeat buyers.

Today, hundreds of pharmaceutical manufacturers know that only Baker's standards of quality — *measured purity by the ton* — are adequate to safeguard the reputation and the repeat sales of their products. Each Fine Chemical produced by Baker, must meet predetermined and exacting standards. These standards are so high that the manufacturer is assured of a dependable margin of safety. He knows no worry over this division of his business.

Baker salesmen are worthy representatives of Baker ideals. Have a talk with a representative; arrange for test samples of Baker products. Your confidence will be respected; you can make your own tests of Baker quality.

J. T. BAKER CHEMICAL CO., Phillipsburg, New Jersey

NEW YORK
420 Lexington Avenue

PHILADELPHIA
220 South 16th Street

CHICAGO
435 North Michigan Avenue

ANALYZED REAGENTS Baker's FINE CHEMICALS

A partial list of Tonnage Fine Chemicals held under rigid control, at no price premium.

Alkali Bromides
Potassium Iodide
Magnesium Oxide
Cream of Tartar
Bismuth Subcarbonate—
Subnitrate and other Salts
Caustic Potash and Soda
Sticks and Pellets
Rochelle Salt
Lead Acetate
Salicylates

Baker's fine chemicals

for Pharmaceutical Manufacturers

The magnetism of a well chosen, attractively designed CONTAINER swings interest and acceptance . puts POWER behind products of grown and growing industries . 'NATIONAL' CONTAINERS are advancing the appeal of foremost productions in countless trades.

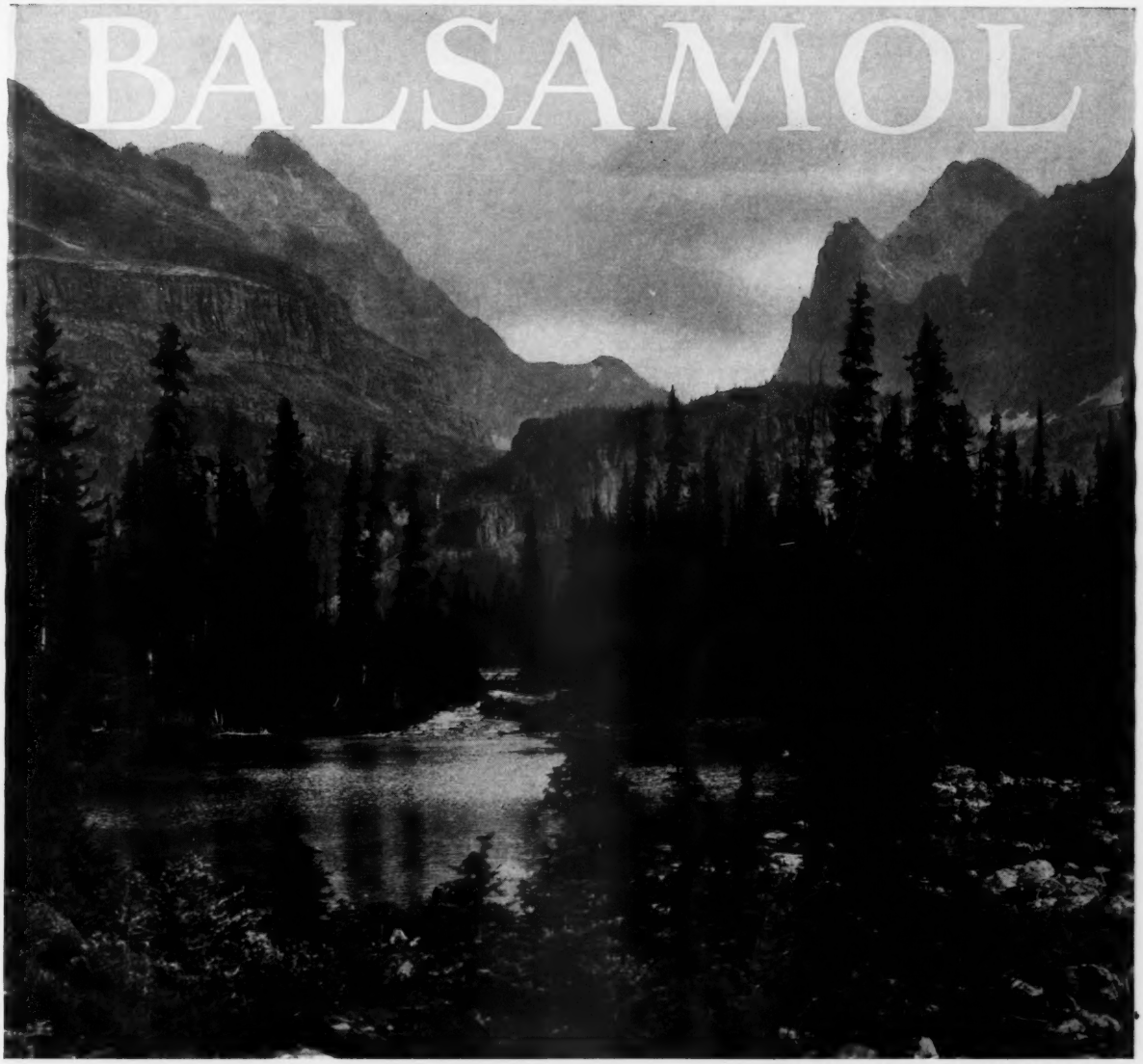
NATIONAL *can* WIN ATTENTION!

NATIONAL CAN CORPORATION

SUBSIDIARY OF McKEESPORT TIN PLATE CORPORATION

EXECUTIVE OFFICES • 110 EAST 42nd STREET • NEW YORK CITY

Sales Offices and Plants • NEW YORK CITY • BALTIMORE • MASPETH, N. Y. • CHICAGO • BOSTON • DETROIT • HAMILTON, OHIO



OPABIN PASS, *Courtesy* Canadian Pacific Railway

The freshness of all outdoors, the healthy odor of deep woods and mountain air

Possessing a ***truly*** balsamic and retentive odor, BALSAMOL will replace all the natural balsam and gum characters in your formulae — most effectively and without their inconveniences.

BALSAMOL is especially good as a base and fixative for floral types and in combination with smooth warm tones, forms the background of many of the present day popular perfumes.

Write us for further details and suggestions. $22.00 per pound—a trial ounce $1.50.

FIRMENICH & CO., INC.

135 FIFTH AVENUE, NEW YORK, N.Y.

Monsanto Quality Control

Insures Monsanto Quality for the finished product

In modern laboratories set up for the sole purpose of safeguarding quality, a sample of every lot of a Monsanto product is put through exacting tests and approved before shipments are released. Every precaution is taken to guarantee your receiving in each succeeding shipment, the quality established by Monsanto as the result of more than three decades of manufacturing experience and, which in turn, will be passed on to your own finished products.

Monsanto Products for the Pharmaceutical Manufacturer include:

- Acetanilid U. S. P.
- Acetophenetidin U. S. P.
- Aspir Gran
- Aspirin U. S. P.
- Aspirin Starch Granulations
- Benzoic Acid U. S. P.
- Caffeine U. S. P.
- Chloral Hydrate U. S. P.
- Chloramine-T U. S. P.
- Glycerophosphates
- Phenol U. S. P.
- Phenolphthalein U. S. P.
- Salicylates,
  Etc.

Monsanto Chemical Company

ST. LOUIS, U.S.A.

30 Rockefeller Plaza, NEW YORK
Brown Marx Bldg., BIRMINGHAM
373 Brannan Street, SAN FRANCISCO
Tribune Tower, CHICAGO
Johnston Building, CHARLOTTE
Everett Station, BOSTON
Midland Building, CLEVELAND
378 St. Paul St., West, MONTREAL

CHEMICALS OF QUALITY
Monsanto
ST. LOUIS, U.S.A.

Associations

Proprietary Assn Committees

George H. Miller, president, Proprietary Association, has appointed the following committees: Legislation, Dr. William E. Weiss, chairman; advertising, William Y. Preyer, chairman, Lee H. Bristol, George H. Miller, and Earle A. Meyer, secretary; requirements, George H. Miller, chairman, A. H. Diebold, Dr. F. J. Cullen; foreign trade, J. D. Bohan; membership, Fred E. Weiss; memorials, H. H. Good; pitchmen, William H. Berg; public relations, Lee H. Bristol; scientific executive committee, Dr. George F. Reddish; veterinary interests, H. M. Clark.

The following are the delegates chosen to represent the association in various national drug trade activities:—

American Pharmaceutical Association, Dr. S. T. Helms, voting delegate; Dr. J. P. Snyder, Dr. F. J. Cullen, C. L. Black.

National Conference on Pharmaceutical Research, Dr. S. T. Helms, voting delegate; Dr. J. P. Snyder, Dr. F. J. Cullen, C. L. Black.

National Drug Trade Conference, James F. Hoge, executive delegate; Dr. S. T. Helms, Dr. F. J. Cullen.

Tube Manufacturers Elect

At the annual meeting of the Collapsible Tube Manufacturers' Assn., held June 15, the following officers were elected: president, Frederic Remington, president of the Peerless Tube Co.; vice-president, J. Everton Turner, president of the Turner White Metal Co.; secretary, L. B. Platt. The following directors were elected: Joseph C. Steiner, president of the Atlas Collapsible Tube Co., L. Tracy Sheffield, president of the New England Collapsible Tube Co. and H. S. Darlington, president of A. H. Wirz, Inc.

H. Gregory Thomas Abroad

H. Gregory Thomas, director of the Board of Standards, sailed on the SS Statendam on July 20. Mr. Thomas will travel through Denmark, Switzerland, Germany, Czecho-Slovakia, and other countries, making an investigation tour of the important cities in Europe where scientific research is being made of cosmetic products. Mr. Thomas will return to New York some time in September.

Van Voorhis Heads P. A. A.

Benedict Van Voorhis of the plastics department of E. I. du Pont de Nemours & Co., has been elected president of the Purchasing Agents Association of New York. He was also recently elected chairman of the Chemical and Allied Products Buyers Group of the National Association of Purchasing Agents.

Proprietary Assn. Members

Macfadden Publications, Inc., and the New York Daily News have become associate members of the Proprietary Association. The new members will cooperate actively with the advisory committee on advertising through which the Proprietary Association is seeking to raise the standard of drug advertising.

Financial

Com. Solvents Earnings

Commercial Solvents Corp. reports for six months to June 30: Net profit $862,380, equal to 33 cents a share on 2,636,878 shares of capital stock, compared with $1,083,948, or 41 cents a share last year, June quarter: Net profit $360,606, or 14 cents a share, compared with $501,773, or 19 cents a share in previous quarter and $466,170, or 18 cents a share in quarter ended June 30, 1936.

Dow Chemical Dividends

The Dow Chemical Co. has declared dividends as follows payable August 16 to stockholders of record at the close of business August 2: Preferred stock, or deposit receipts therefor, $1.25; common stock without par value, 75 cents per share.

Hazel-Atlas Earnings Up

Hazel-Atlas Glass Co. reports for twelve months ended July 3: Net profit, $3,472,724, or $7.99 a share on 434,474 shares of capital stock, compared with a net profit of $2,825,867, or $6.50 a share on the stock, for twelve months ended June 27, 1936. Quarter ended July 3: Net profit, $900,172, equivalent to $2.07 a share on the stock, compared with a net profit of $650,682, or $1.49 a share on the stock in the quarter ended June 27, 1936.

Jamieson's Best Year

C. E. Jamieson & Co. has completed the best year in its history and paid on June 23 dividend of $1.75 per share on its no-par value common stock to stockholders of record June 18, 1937. The entire issue of preferred stock has been exchanged share for share into the no-par value common.

Rebuilding necessitated by the recent explosion has been completed and operations are rapidly approaching normal. Practically the entire building damaged by the explosion has been gone over and, at the same time, the general offices were rearranged, enlarged and complete new fixtures installed. Analytical and control departments are in the process of modernization.

Lambert Earns More

Lambert Co. reports for the six months ended June 30, net profit of $652,061 equal to 87 cents each on 746,371 capital shares outstanding as compared with $566,498, or 76 cents a share, in 1936. Net profit for the June quarter was $204,682, or 27 cents a share, against $185,613, or 25 cents a share earned in the same quarter of 1936.

Lehn & Fink Earns Less

Lehn & Fink Products Corp. reports for the six months ended June 30, net profit of $238,130, equal to 59 cents each on 400,000 shares of $5 par capital stock. This compares with a net profit in the same period last year of $286,616 or 71 cents a share.

Mathieson Earnings Up

Mathieson Alkali Works reports for the second quarter of 1937 net income of $516,726 equal to 58 cents a share on 830,428 common shares. This compares with an income of $477,051 or 52 cents a common share in the preceding quarter and $428,191 or 46 cents a share in the June quarter last year.

For the first six months of the year the company's income was $993,778 or $1.10 a common share as compared with $717,882 or 76 cents a share in the first half of 1936.

Monsanto Offers Preferred Stock

Monsanto Chemical Co., St. Louis, has filed a statement with the Securities and Exchange Commission covering 50,000 shares of no-par value $4.50 cumulative series A preferred stock. The proceeds from the sale of the stock will be added to the general fund and expended on capital additions and replacements and improvements to plants, processes and facilities.

Parke, Davis Earns More

Parke, Davis & Co. reports for six months to June 30: Net profit, $4,338,853, equal to 89 cents each on 4,892,114 no-par capital shares, against $4,123,384, or 84 cents a share on 4,891,169 shares, a year earlier. Net income for year to June 30, $9,428,594, or $1.93 a share, compared with revised net profit of $8,672,106, or $1.77 a share, in year to June 30, 1936.

U. S. I. Earnings Jump

U. S. Industrial Alcohol Co. has reported for the six months ended June 30, net income of $302,047, equal to 77 cents a share on 391,238 capital shares outstanding. This compares with a net income in the same period last year of $89,782, or 22 cents a share. Gross profit on sales of company for these periods totaled $1,056,641, and $1,038,649 respectively.

DOW EPSOM SALT, U.S.P. RECRYSTALLIZED

Just a month ago this wide-awake youngster stepped on a rusty nail . . . infection developed . . . the doctor ordered a hot Epsom Salt Solution. Soon all danger passed . . . the wound healed . . . today this boy is again happy, healthy and active.

More likely than not, it was Epsom Salt made by Dow at Midland that aided in cleaning up the infection. For Dow is one of the largest producers of this pharmaceutical chemical in the country.

There is a distinct reward in knowing that, in the careful making of such chemicals, human health and happiness are benefited. Despite its size as one of the largest chemical manufacturers, Dow is not unmindful of this impressive fact.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

Branch Sales Offices: **30 Rockefeller Plaza, New York City; Second and Madison Streets, St. Louis; 135 South La Salle Street, Chicago**

*Trade Mark registered U. S. Patent Office

A PARTIAL LIST OF DOW PHARMACEUTICAL CHEMICALS

Acetphenetidin, U.S.P. • Antipyrine, U.S.P. • Benzoic Acid, U.S.P. • Minor Bromides • Carbon Tetrachloride, C.P. • Chloroform, U.S.P. • Epsom Salt, U.S.P., Recrystallized • Ferric Chloride, U.S.P., X (Solution or Crystals) • Glycine • Magnesium Sulphate, Desiccated • Phenol, U.S.P. • Acetyl Salicylic Acid, U.S.P. (Powder or Crystals) • Acetyl Salicylic Acid, Granulation, 10% starch (White, Pink, Green) also 16% and 20% starch (White) • Methyl Salicylate, U.S.P. • Salicylic Acid, U.S.P. • Sodium Salicylate, U.S.P. • Minor Salicylates • Sodium Benzoate, U.S.P. • Strontium Bromide, N.F. • Tetrachlorethylene, Purified, N.F. • Trichloracetic Acid, U.S.P.

*DOW

Zonite Earnings

Zonite Products Corp. reports for six months to June 30: Net profit, $41,420, equal to 5 cents a share on 835,551 capital shares, contrasted with net loss last year of $7,013. June quarter: Net profit, including $40,000 credit representing recovery of reserve for future advertising which was provided for out of 1937 first quarter earnings, amounted to $1,633, equal to less than 1 cent a share. This compares with net income in preceding quarter of $39,786, or 5 cents a share on 825,552 shares, and with a net loss in second quarter of 1936 totaling $30,914, including $35,000 credit from reserve for contingencies.

Continental Can Stock

Continental Can Co. plans the issuance of 200,000 shares of new preferred stock out of an authorized issue of 350,000 shares to be voted by stockholders September 28, it was announced yesterday.

The letter to stockholders by O. C. Conway, chairman, and O. C. Huffman, president, said that of the total proceeds $14,000,000 would be used to repay bank indebtedness created to finance increased inventories and the remainder to supply new capital.

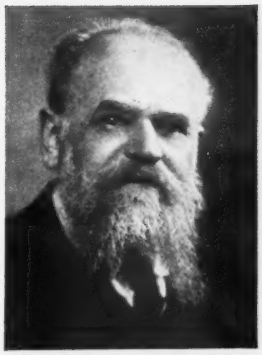
Obituaries

Dr. Clement O. Kleber

Dr. Clement O. Kleber, 74, world-renowned authority on aromatic chemicals and essential oils, died at his home in Clifton, N. J., July 14, of a heart attack following an illness of several days.

Dr. Kleber, founder and owner of the Clifton Chemical Laboratories, Clifton, N. J., attracted international recognition by his original work in the field of analytical chemistry. His famous treatises on peppermint, bay and other essential oils, some worked out in conjunction with Professor Frederick B. Powers, established his reputation. He lectured many times at Columbia University and occasionally spoke before meetings of the American Chemical Society.

Dr. Kleber, who was born in Germany, studied chemistry at the University of Heidelberg, the University of Berlin, and received his Ph. D. from the University of Leipsic. In 1893 he came to this country and entered the service of Fritzsche Brothers at their Garfield, N. J., factory, assuming charge of their factory in 1896. In 1900 the Heyden Chemical Co., of which Dr. Kleber subsequently became treasurer, bought this plant from Fritzsche Brothers. In 1906 Dr. Kleber founded his own factory, the Clifton Chemical Laboratories, which, up to the present day, has



DR. CLEMENT O. KLEBER

manufactured the basic materials for Fritzsche Brothers, Inc., of New York.

In 1929, Dr. Kleber suffered a slight stroke and has since gradually relinquished the active management of his company to Arthur Nicolaus. He was a member of the Committee of Revision of the U. S. Pharmacopoeia. A widowed daughter, Mrs. Marie Kleber Thienes, survives.

Chauncey Clark Woodworth

Chauncey Clark Woodworth died July 14 at his home in New York at the age of 53. After his graduation from Williams College, he acquired control of the Woodworth Perfumery Co., founded by his grandfather, which later became the Bourjois Co. Mr. Woodworth retired about ten years ago.

Regulatory

U. S. P. Supplement

The First Supplement to U.S.P. XI has just been released and will become official on December 1, 1937. It is a booklet of about 100 pages in a substantial binding and may be obtained from all distributors of the U.S.P. at $1.00 per copy. In this supplement all of the texts revised to June 1, 1937, are reprinted in full so that there can be no misunderstanding of the authorized changes.

On September 12, Meyer Brothers Drug Co., St. Louis, will celebrate its eighty-fifth anniversary. The company has been continuously operated throughout all these years under the same name and by the same family control.

A. M. A. Rejects

ENTORAL

"Entoral," a preparation of mixed bacterial vaccine for oral administration, recommended for the prevention of colds, manufactured by Eli Lilly & Co., has been rejected by the A. M. A. because the hypothesis on which "Entoral" is based is inadequately supported by experimental evidence and the reports of its use contained in the literature are insufficiently documented.

LARODON

Larodon, manufactured by Hoffmann-LaRoche, Inc., is not acceptable for New and Non-Official Remedies because it is marketed with claims not supported by the available evidence.

CONDOL and ERTON

Condol and Erton, marketed by the National Institute of Nutrition and the Nutrition Research Laboratories, Inc., respectively, as preparations of irradiated ergosterol of very high potency, mainly for use in the treatment of arthritis, have been rejected by the A. M. A. because of lack of evidence for their claimed therapeutic value.

A. M. A. Accepts

COD LIVER OIL CONCENTRATE TABLETS—MERRELL

A cod liver oil concentrate in the form of tablets, each having a vitamin potency of not less than 3,150 units (U.S.P.) of vitamin A and not less than 315 units (U.S.P.) of vitamin D. Each gram of tablet has a vitamin potency of not less than 5380 units (U.S.P.) of vitamin A and not less than 538 units (U.S.P.) of vitamin D.

MERCURIN

Mercurin, a complex synthetic mercurial containing about 40 per cent. of mercury prepared from d-camphoric acid and a racemic substituted propylamide has been accepted for inclusion in New and Non-official Remedies. It is manufactured by Chinoin Chemical & Pharmaceutical Works, Ltd., Budapest, Hungary (Campbell Products, Inc., New York, distributor) U. S. patent applied for. U. S. trademark 338,989.

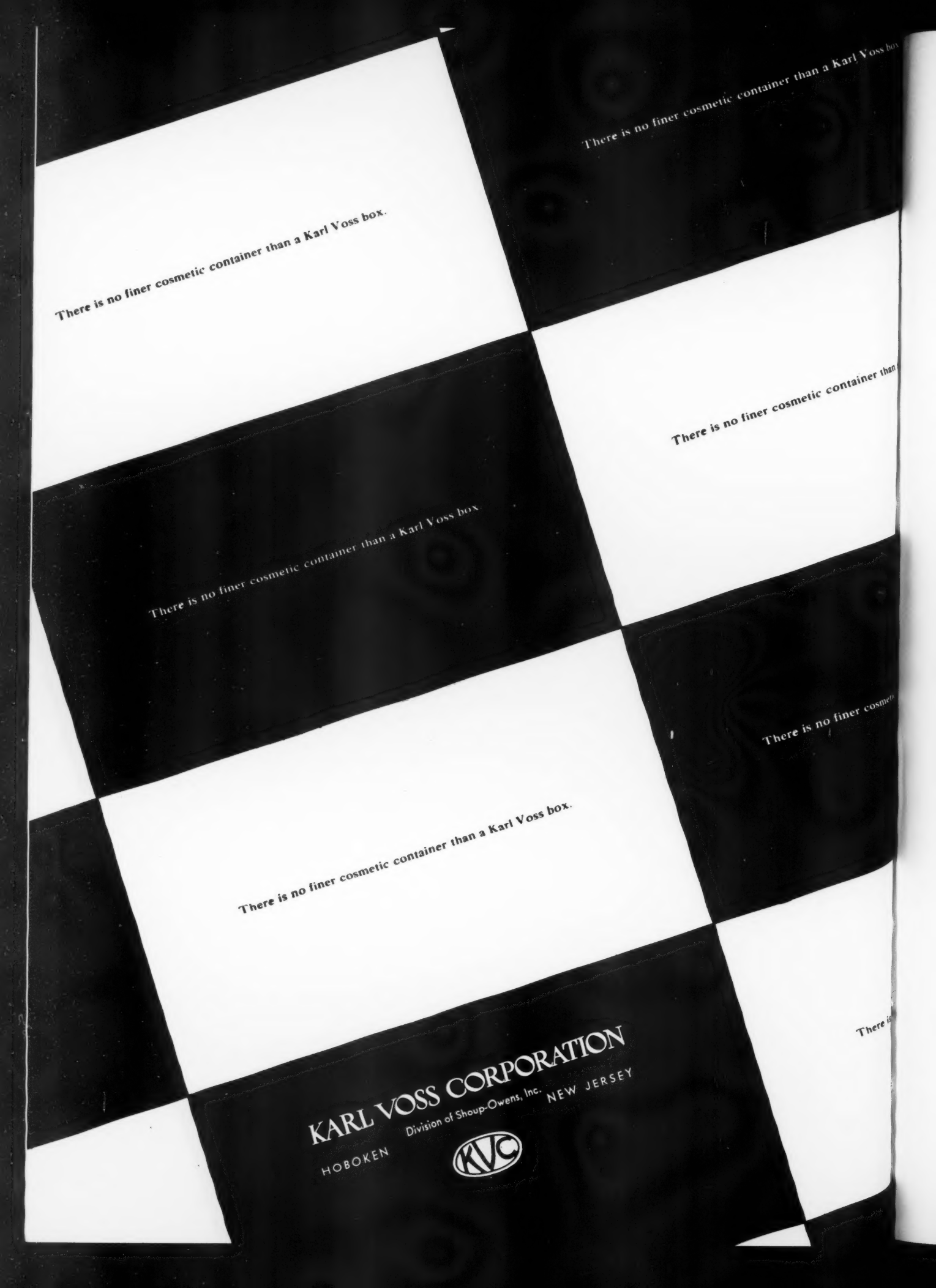
SULFANILAMIDE

SULFANILAMIDE — *p*-amino-benzene-sulfonamide. — $NH_2C_6H_4SO_2NH_2$— The amide of sulfanilic acid.

Actions and Uses—Originally it was reported that sulfanilamide acts against Lancefield's group A strains of hemolytic streptococcus by virtue of an apparently specific effect on these organisms. More recent clinical evidence suggests that the action of this chemical may affect other organisms, especially certain gram-negative cocci. The evidence suggests that its action may be antibacterial.

Sulfanilamide has been used primarily in infections due to beta-hemolytic streptoccoci, especially in the treatment of puerperal fever, erysipelas, hemolytic streptococcus septicemia, streptococcic sore throat and surgical infections with hemolytic streptococcus. Present studies suggest that the drug may eventually prove useful in meningococcic and possibly in gonococcic infections.

It must be remembered that acidosis sometimes follows the administration of sulfanilamide. It has been suggested that sodium bicarbonate may prove useful in


There is no finer cosmetic container than a Karl Voss box.
There is no finer cosmetic container than a Karl Voss box.
There is no finer cosmetic container than a Karl Voss box.

combating the acidosis produced by the drug. Jaundice and urticaria have also been reported as undesirable side effects following the administration of this drug. Magnesium sulfate should not be administered during the course of the treatment because it is thought to increase the danger of acidosis. Certain studies indicate that sulfhemoglobinemia may ensue in some individuals especially after intensive or continued administration of sulfanilamide. There is also a possibility that methemoglobinemia and granulocytopenia may follow such therapy and there have been reports of hemolytic anemia following sulfanilamide administration. It is advisable in any extensive use of sulfanilamide to examine the blood microscopically for evidence of blood cell destruction as well as lowering of the white blood cell count, and to rule out both sulfhemoglobinemia and methemoglobinemia by spectrographic examination of the blood.

Dosage.—The dosage of sulfanilamide by mouth is calculated on the basis of 1 Gm. (15 grains) for each 20 pounds (9 Kg.) of body weight up to 100 pounds (45 Kg.). Apparently 5 Gm. (75 grains) represents the maximum daily dose that has been used with safety in adults of average weight. The 5 Gm. (75 grains) is divided into four doses given six hours apart. Smaller doses of from 3 to 4 Gm. (45 to 60 grains) daily will usually be found sufficient. Although intraspinal and intravenous administration of properly prepared solutions have been used, such use of the drug is largely experimental.

Sulfanilamide occurs as a white, practically odorless, slightly bitter — with sweet after-taste—crystalline substance. It is soluble in hot water, hot alcohol and cold acetone, slightly soluble in cold water and cold alcohol, and insoluble in ether, benzene and chloroform. The melting point is 165-166.5 C. when a standardized micro-melting point apparatus is used. (This method is preferred for purposes of identification.) The melting point when determined according to the U. S. P. XI method is not less than 165 nor more than 167 C. An aqueous solution of sulfanilamide is neutral to litmus.

Crystallographic analysis of sulfanilamide gave an index of refraction of approximately 1.60.

Dissolve about 1.5 Gm. of sulfanilamide in 75 cc. of hot water, cool and filter. To 25 cc. of the filtrate add 5 drops of nitric acid, 1 cc. of silver nitrate T. S.: no turbidity should be produced (*halogen ion*). Evaporate another 25 cc. of the filtrate to approximately 10 cc., and add 0.5 cc. of 1 normal hydrochloric acid and 1 cc. of barium chloride T. S.: no turbidity should be produced (*sulfate ion*). To 0.05 Gm. of sulfanilamide add 1 cc. of 10 per cent. sodium hydroxide and boil gently. Place a wetted piece of red litmus paper over the test tube: no bluing is noticeable (*free ammonia*). Incinerate about 0.1 Gm. of sulfanilamide: the residue is not more than 0.05 per cent. Sulfanilamide shall also pass the test for arsenic and heavy metals (U. S. P. XI method). Dry about 0.1 Gm. of sulfanilamide, accurately weighed, to constant weight at 100 C. under "vacuum" not exceeding 150 mm. of mercury for approximately five hours: the loss does not exceed 1 per cent.

Place approximately 0.01 Gm. of sulfanilamide in a small test tube and heat over an open flame until the material melts: an intense violet-blue color develops and an odor of aniline and ammonia is evolved if heating is prolonged. Dissolve 0.01 Gm. of sulfanilamide in 0.5 cc. of concentrated sulfuric acid: the solution remains clear and colorless on heating to 100 C. (*carbonizable impurities*). Add 0.05 Gm. of sulfanilamide to 2 cc. of 10 per cent. hydrochloric acid and boil gently for about two minutes; cool in ice bath and add 2 cc. of 1 per cent. sodium nitrite solution. Dilute with water to 4 cc. and keep mixture in the ice bath for at least five minutes. To 2 cc. of this cooled solution add a solution of 0.02 Gm. of beta-naphthol in 1 cc. of 10 per cent. sodium hydroxide: an orange precipitate forms. Dissolve approximately 0.07 Gm., accurately weighed, of sulfanilamide, previously dried, in 1 cc. of concentrated hydrochloric acid and 5 cc. of water. Cool to 15 C. and add 15 Gm. of ice. Agitate the solution with a small glass rod and titrate very slowly with 0.1 normal sodium nitrite solution. Streak the solution on freshly prepared starch-iodide paper until an immediate blue streak is obtained. Each cubic centimeter corresponds to 0.0172 Gm. of sulfanilamide. The sulfanilamide assay is not less than 99 per cent., nor more than 100.5 per cent. Dissolve 0.015 Gm. of sulfanilamide, accurately weighed, in a small erlenmeyer flask with 3 cc. of distilled water, add 0.05 Gm. of potassium permanganate and 0.05 Gm. of potassium hydroxide. Reflux this mixture for thirty-five minutes. Cautiously acidify with 5 cc. of concentrated hydrochloric acid and boil until clear. Dilute with water and add 0.05 Gm. of barium chloride, pulverized. Filter the solution through a micro Neubauer platinum crucible: the amount of sulfur is not less than 18.3 per cent. nor more than 18.9 per cent.

For assaying sulfanilamide tablets, 5 grains, titrate the dissolved tablets in ice cold hydrochloric acid solution with 0.1 normal sodium nitrite according to the assay for sulfanilamide. The sulfanilamide found is not less than 0.300 Gm. nor more than 0.35 Gm.

Note: For purposes of scientific investigation and identification both diazotization and sulfur assays are given; for manufacturing control either one of these, in association with the other tests, may be considered adequate.

Brands of sulfanilamide accepted are: Calco, Lederle, Merck, and Squibb, all in five grain tablets.

New Pharmaceutical Titles

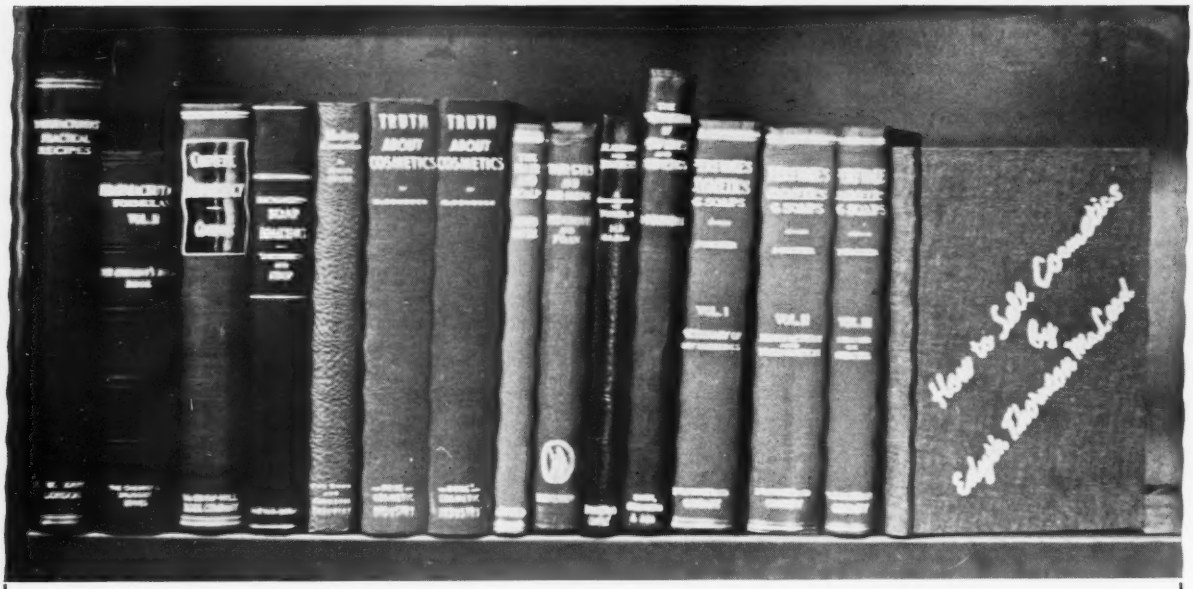
Labeling of pharmaceutical products to reveal all active ingredients is to be required by the Food and Drug Administration, according to Enforcement Chief Walter G. Campbell. Mr. Campbell states that while this has not been required in the past, it is in harmony with the present wording of the Food and Drugs Act. The retitling of products to indicate all the active ingredients, presents quite a problem especially when these products are in small packages. A committee from the American Drug Manufacturers Association and the American Pharmaceutical Manufacturers Association, probably to be known as the Joint Catalog Simplification Committee, will hold conferences with the Food and Drug Administration to work out the names. This committee will cooperate with the Food and Drug Administration much in the manner in which the Joint Contact Committee representing these two associations, has cooperated.

The plan undertaken by the Food and Drug Administration was first presented by Dr. James J. Durrett, Chief of Drug Control, at the meeting of the American Pharmaceutical Manufacturers Association held at St. Petersburg, Fla., last March. Dr. Durrett contended that full and complete observance of the law would require inclusion of all active ingredients in the titles of pharmaceutical preparations. Omission of any such ingredient would amount to a false and misleading statement or one that may create a false impression, according to the Department.

According to Mr. Campbell, "To label as fluid extract of belladonna, a compound containing two or more other potent drugs, would be as false and misleading as to label and sell as apple jelly, a mixture of apples and current jelly."

"When alkaloids, strychnine, arsenic, and similar very potent drugs are ingredients of any product, the title should declare the fact. It is not sufficient to include mention of such ingredients on the label while omitting them from the title of the product. In the case of inactive or non-potent drugs, the term, mixture, or compound is adequate, but not otherwise. The problem is principally one of working out in the titling on small packages the operation of this general principle of standardization."

This matter has been in the minds of department officials for some years past, and attempts have been made from time to time to enforce it against proprietaries. However, resistance from manufacturers has been strong and the plan has not been pushed. Evidently the Department is going to start with ethical preparations and then take up proprietaries at a later date.



The Cosmetic Bookshelf

***TRUTH ABOUT COSMETICS*—McDonough, 311 pp. $5.00**

A searching and critical analysis of cosmetics and cosmetic action. A discussion of every type of cosmetic, their chemical character, their use and established cosmetic value.

HOW TO SELL COSMETICS—*McLeod, 104 pp. $2.00*

Chapters cover the sales of every kind of cosmetic. This book is a compilation in easily read form of a notably successful sales course.

MODERN COSMETICS — Chilson Second Edition in process of publication.

The first book to be published in America on the manufacture and formulation of cosmetics is now in its Second Edition. New features: Completely revised and tested formulas, a complete section on manufacturing processes, plant layout, machinery and equipment.

COSMETIC DERMATOLOGY — Goodman, 591 pp. $6.50

Dictionary of ingredients, discussion of anatomic, physiologic, and pharmacologic bases of cosmetic application; "shelf-tested" formulary; and appendices on odor and color in cosmetics.

***PERFUMES, COSMETICS* & SOAPS—Poucher, Second Edition**

Vol. 1—Dictionary of cosmetic raw materials, 439 pp. $8.00

Vol. 2—Perfume formulary and procedure of manufacture 426 pp. $8.00
Vol. 3 — Cosmetic formulary and procedure of manufacture, 228 pp. $7.00

PREPARATION OF PERFUMES & *COSMETICS* — *Durvelle*, 419 pp. $10.00

This well-known work contains much valuable information on cosmetic raw materials and a complete formulary on the manufacture of perfumed products.

THE HAIR AND THE SCALP—Savill, 288 pp. $5.00

Discusses in detail the structure and physiology of hair, and the probable causes and treatments of common conditions such as dandruff, excessive oiliness, etc.

HAIR DYES AND HAIR DYEING —Redgrove and Foan, 194 pp. $3.00

There is little literature on hair-dyeing. In the making of this book, a chemist and a practical hairdresser have collaborated to produce the most complete treatise on the subject.

***FLAVORS AND ESSENCES*—Gazan, 115 pp. $10.00**

This new-type formula book gives you brand-new formulas, most of which have never before been published. Every formula has been carefully tested. Every product is highly concentrated, very soluble, and may be kept for several years without change or deterioration.

MODERN SOAP MAKING — *Thomssen and Kemp, 550 pp. $7.50*

Designed as a practical volume for the practical soap-maker. Its compilation is based on twenty years of actual experience in the soap plant by the authors. The emphasis is all on the practical handling and refining of raw materials, kettle practice, and other operations in the modern soap factory.

MANUFACTURERS' PRACTICAL RECIPES — Jameson, 579 pp. $10.00

Although a general formula book, this volume contains many worthwhile recipes for perfumes, and cosmetics.

PHARMACEUTICAL FORMULAS Vol. 2—982 pp. $8.00

The title of Vol. 2 is somewhat misleading as this work contains 415 pages of formulas on Toilet Preparations. This work is authoritive and can be recommended.

THE DRUG AND COSMETIC INDUSTRY

101 WEST 31st STREET ***Book Department*** **NEW YORK CITY**

INDUSTRY'S BOOKS

Any book reviewed in this section can be purchased direct from THE DRUG AND COSMETIC INDUSTRY at regular publisher's price.

Sidgwick's Organic Chemistry of Nitrogen, by T. W. J. Taylor and Wilson Baker, 590 pages, Oxford University Press, New York, $8.50.

The Organic Chemistry of Nitrogen, by N. V. Sidgwick was first published in 1910 and proved a valuable and stimulating book. This second edition has been entirely rewritten. It gives a full account of the simpler organic compounds of nitrogen, amines, nitro-compounds, cyanogen derivatives, etc., and describes and discusses the various points of interest that they raise. Of the heterocyclic compounds pyrrole, indole, pyridine, quinoline, and isoquinoline are included, but no compounds with more than one cyclic nitrogen atom. As in the first edition there is a reasonably full discussion of the relevant physical considerations and the experimental side of the subject is emphasized. Professor Sidgwick has contributed an introduction in which he deals with the importance of the theory of resonance in organic chemistry.

Absorption and Extraction, by Thomas K. Sherwood, 278 pages, McGraw-Hill Book Company, New York, $3.50.

This book outlines the underlying theory of such important diffusional processes of the unit operations of chemical engineering as absorption, extraction, drying, humidification and dehumidification. Particular attention is given to the engineering problems connected with the design and operation of equipment for absorption and extraction. The first part deals with the theoretical aspects of diffusion and the underlying theory of the design of absorption equipment. Graphical methods for design calculations are treated in detail, and a chapter is devoted to the design of absorption equipment for multicomponent systems. Two chapters on absorption equipment follow and the final chapter deals with the underlying principles of solvent extraction.

Colloid Chemistry, by Jerome Alexander, 505 pages, D. Van Nostrand Company, Inc., New York. $4.50.

In preparing this greatly enlarged fourth edition, the author has adhered to the principles which governed the preparation of previous editions; experimental data is coordinated into naturally interlocking groups and apparently unrelated data from many fields have been brought together to show similarities. The book is built around no one theory. Observable facts are stressed, theoretical considerations being incidentally invoked so that facts may be better coordinated and their import understood. To make the book more useful in teaching, the greatly enlarged content has been rearranged coherently along the lines of a text.

The Recovery Problem in the United States, 709 pages, published by The Brookings Institution, Washington, D. C., $4.00.

This comprehensive investigation brings into focus and appraises the primary factors upon which constructive business expansion now depends. While the analysis is centered upon the situation in the United States, the American recovery problem is considered in its world setting and in the light of the economic changes which have occurred in recent years.

Take Care of Yourself, by Jerome W. Ephraim, 287 pp., Simon and Schuster, New York cloth $2.00.

This is a practical guide to health and beauty. Many drug and cosmetic products are discussed in a general way so that the book can in no way be classified with those debunking works which have endeavored to obtain a wide sale by attacking individual products on the market. The author makes suggestions for the proper care of the body and recommends simple remedies for minor ailments and consultation with physician or

dentists for serious complaints. By consulting Mr. Ephraim's book it will be possible to purchase a home medicine chest that meets all the minor emergencies.

Textbook of Pharmaceutical Arithmetic, by T. J. Bradley, Second edition, 199 pp. Lea & Febiger, Phila. $2.25.

This revision of the late Dean Bradley's well known work follows its original closely, but meets the new standards set by the United States Pharmacopoeia. It is assumed that those who use the book have a knowledge of elementary arithmetic. Since ratio and proportion are so useful in pharmaceutical and chemical arithmetic, the book begins with a consideration of these topics. The subject is developed by example and practice, a procedure which has proved useful alike to the student and the practising pharmacist.

Vitamins, Minerals and Hormones, by Albert P. Mathews, 97 pp. William Wood & Co., Baltimore, Cloth $1.50.

This book is reprinted from Principles of Biochemistry by the same author, in response to a specific demand. As a separate book this gives a concise treatment from the biochemical viewpoint, of the mechanism of nutrient intake and reproduction. Chapters include Vitamins; The Mineral Metabolism of the Body; The Internal Secretions of the Body. Hormones.

Principles of Pharmacy, by H. V. Arny and R. P. Fischelis, Fourth Edition, 1139 pages. W. B. Saunders Company, Philadelphia, $8.00.

This fourth edition is based upon the new editions of the U.S.P. XI and N.F. VI. It affords the students concise information concerning national standards and includes in its scope the newest and most useful knowledge of all types of drugs, medicines and chemicals of today. The most recent advancements in medication, notably synthetic chemicals and endocrine preparations, are given particular attention.

Applied Biochemistry, by Frank Wokes, 522 pages, William Wood and Co., Philadelphia, $5.00.

This book gives a general outline of biochemistry for pharmacists and others concerned in the application of biochemical knowledge to public health, and is the first textbook to be written from this point of view.

It is of great use to all pharmaceutical students and assists the qualified pharmacist to keep abreast of recent developments in medical science. The book has been designed to cover the requirements of pharmaceutical students in all English-speaking countries and will be found useful by everyone interested in biochemical problems.

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ESSENTIAL OILS • SYNTHETIC FLOWER OILS • AROMATIC CHEMICAL PREPARATIONS • AMYL and ETHYL ETHERS • OLEORESINS • RESINOIDS and ANIMAL FIXATIVES • DEODORIZING COMPOUNDS • ANTI-OXIDANTS

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FLAVORING OILS, ESSENCES and SPECIALTIES for PHARMACEUTICAL PREPARATIONS, DENTAL PASTES and POWDERS, MOUTH WASHES, PREPARED FOODS, DRINKS, ETC.

Take advantage of our experience; let our Research and Service Departments assist you.

ODOR COORDINATING

. . . a job for the specialist!

CAN YOU compose a symphony? . . . . . or, given brush and pigment, paint a masterpiece? Hardly, for it takes more than musical or artistic inclination to produce worthy achievement in either field. What it does take is talent trained to its creative peak by study, practice and experience.

Odor coordinating is an art even more complex. Not only does it involve the least developed of man's five senses, but it requires the uncanny ability to combine elements, far more numerous and subtle than tones or colors, into blends of pleasing harmony. Unquestionably, it is the job for a specialist, and the manufacturer who entrusts his perfuming to one less skilled is merely gambling with the future of his product.

Why take this gamble? Why not bring your problems to an organization out of whose facilities and long experience have come many of perfume's finest masterpieces? Consult FRITZSCHE specialists regarding your next new odor and assure your product the benefits of odor coordinating practically applied by experts.

FRITZSCHE Brothers, inc.

816 WEST 8TH STREET LOS ANGELES, CAL.
Proprietors of PARFUMERIES de SEILLANS Seillans, France
FRITZSCHE BROTHERS, of Canada, Ltd., 77-79 Jarvis St., Toronto, Canada

PORT AUTHORITY COMMERCE BLDG.
76 NINTH AVENUE, NEW YORK, N. Y.
118 WEST OHIO ST. CHICAGO, ILL.

Picked at Random — THESE USERS OF STOKES POWDER FILLERS

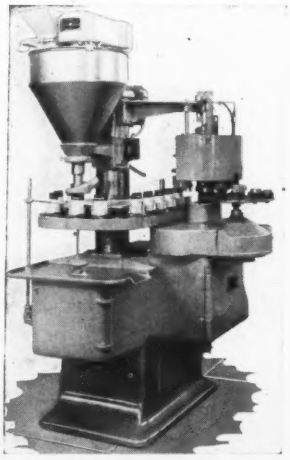
Practically all of the above nationally known products were packaged on Automatic Stokes 15-C Powder Fillers. Some of these containers with delicate box coverings were packaged at the rate of 70 per minute with one operator—accurately, and without spilling or wiping. Others, with friction caps, were filled at more than 50 per minute with fewer operators because of the exclusive Stokes Cap Feeding and Seating attachment.

For tooth or talcum powders in tins, for face powders in drums or for finished boxes, there is no faster, compact, flexible or cleaner unit.

As one user says:

"We have been using the 15-C Powder Filling Machine . . . for two years . . . operating almost every day . . . as perfectly as when first installed. Requires no maintenance other than daily lubrication and cleaning. Well engineered and rigidly constructed."

The typical machine illustrated—with Cap Feeding and Seating attachment—eliminated two operators and enabled the Filler to be operated 70% faster.



Modern in design, the 15-C Filler has completely housed working parts, simplified adjustments and is quickly "changed-over." Semi-automatic machines available—designed for expansion to full automatic models without sacrificing original investment. Consult us on your requirements. When writing, give size and shape of your container and production desired, so that we may make specific recommendations.

Another:

"Entirely satisfactory . . . easily and quickly adjusted . . . simple to operate and accurately fills the containers without spillage."

FJS F.J.STOKES MACHINE COMPANY ESTABLISHED 1895
PHARMACEUTICAL EQUIPMENT

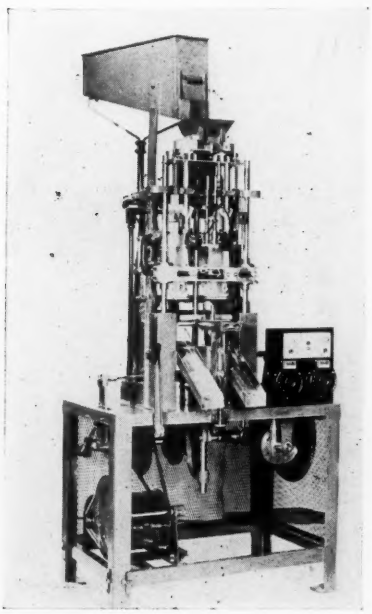
5932 **Tabor Road** **Olney P. O.** **Philadelphia, Pa.**

PRODUCTION FORUM

BY Francis Chilson
PRODUCTION ENGINEER

TRANSWRAP

It will interest you to know that Stokes & Smith Co., Phila., have acquired the Transwrap machine, described in this department some months ago. To refresh your memory we will describe the machine again. This machine is used for the purpose of making bags or envelopes and of filling them at the same time. With the proper attachments, this unit will fill powders, tablets, granular materials, such as effervescent salts, and other dry materials. The bag or envelope is formed from transparent cellulose paper, which is drawn from a roll and formed over the filling mandrel, in which position, it is heat-sealed on the side and on the bottom.



The filled envelope is drawn downward, and, as it leaves the lower end of the mandrel, heat-sealing jaws form the top seal. This heat-seal is wide enough so that it forms, when cut in two the upper seal of the finished evevlope and the lower seal of the next envelope, which is in process of being formed on the mandrel. In short, this machine simultaneously forms the envelope and fills it. Speeds range anywhere from thirty to one hundred a minute depending upon the product and the envelope size. Envelope sizes and capacities range all the way up to four ounces in weight of contents and ten inches in length of envelope. When printed cellophane is used for the envelopes, the printing must include a feature which will actuate a photoelectric cell controlling the cut-off mechanism of the machine.

Paul Hagen will handle this equipment in the mid-west for Stokes and Smith. Paul used to be with Transwrap Machine and when S&S bought a good machine they also bought a good man.

FACTORY FLOORS

For many years we have pondered the problem of painting factory floors. We believe floors should be painted, because paint adds so much to the appearance and cleanliness of the plant. But the trouble always has been that if you could get a paint that would withstand the wear, it could not be had in a shade that would conceal footprints. But the problem appears to be nearing a solution if the claims of The Sterling Varnish Co. of Haysville, Pa. are reasonably accurate. This firm makes a floor finish called Perma Lastic which will dry in eight hours and cover five to eight hundred feet of floor per gallon. It is claimed that this paint will withstand strong alkalis, soap, acids, boiling water etc., and that it will endure wear of the worst sort. It can be had in many colors, and it can be used in or out of doors. Whether it will show footmarks we cannot say. The best bet is to get a sample gallon in a dust grey color and try it out. The same company also makes Infernite, an aluminum paint for kettles, radiators, ducts, furnace doors etc., which will withstand 1000 degrees of temperature without cracking or marring its brilliant surface.

ELECTRIC AIR DRYER

If you have a dry room which you wish to convert into an efficient dryer you will be interested in the unit offered by Electric Air Heater Co., Mishawaka (you pronounce it), Indiana. This electrically operated unit, complete with thermostatic controls, heaters and recirculating device is contained in a housing measuring six feet by sixteen inches by fifteen inches. Temperatures all the way up the scale can be obtained by merely setting the thermostat.

THE MOST *Flexible*

FILLER YOU HAVE EVER SEEN

So versatile it will fill practically *any* kind of container with almost *any* kind of material, the Stokes & Smith Universal Filler, with Gross Weight Scale, comprises four different machines in one single unit. These are:

1. *A gross weight scale with auger feed.*
2. *A volumetric filler measuring material by the volume of the package.*
3. *A volumetric filler measuring material by the turns of the auger, a very precise way for the smaller quantities.*
4. *A packing machine to compress the material into packages.*

Changing from one type of container to another, even from any paste to free-flowing powder, is only a few minutes work.

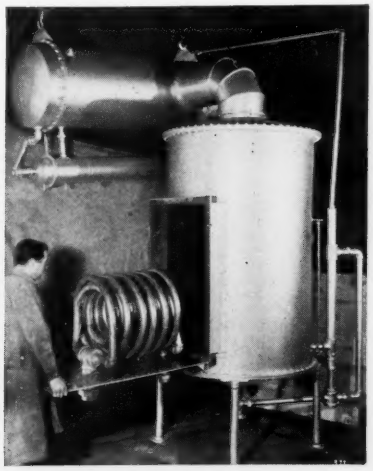
May we arrange a demonstration for you?

STOKES & SMITH Co
PAPER BOX MACHINERY
PACKAGING MACHINERY
4912 Summerdale Ave., Philadelphia, U. S. A.
British Office: 23, Goswell Road, London, E. C. 1

S & S G-1 Filler

BARNSTEAD'S NEW STILL

Barnstead Still & Sterilizer Co., Boston, Mass., invites you to write for details on the new still illustrated in the adjacent photograph. We need not tell you that



this firm specializes on water stills and that they build first rate equipment. This particular model is notable for the ease with which the coils and boiling chamber can be exposed for cleaning. It looks like a well designed job. Remember it when you are again in the market for water equipment.

COOLANT TANK

Worthington Pump & Machinery Corp., Harrison, N. J., has introduced a novel type of brine tank for refrigeration processes. The purpose of this tank is to eliminate elevating the temperature of the coolant by separating the warmed return brine from the chilled supply. This tank is divided into five compartments. At the start of the operation four compartments are filled with chilled brine while the fifth is used to receive the warm brine returning from the process unit. These compartments are arranged so that they overflow from one to the other so that admixing of warm and cold brine is always avoided.

SOLVENT RECOVERY

Of comparatively recent development, the use of activated carbon as a means of recovering solvents from distillation and recovery processes, promises to supplant condensers in many future installations. The advantage of activated carbon is that it requires no water and, hence, is indicated in regions where cooling water is scarce or expensive or hot in summer. Another very desirable feature is that solvents recovered in activated carbon are chemically pure and water free. The carbon is packed in absorption towers, of which two are used in an installation. Once packed, the towers never need to be repacked. We know of installations in other industries which have been in service for ten years without repacking. Another great advantage of activated carbon is that it will absorb alcohol and other solvent vapors from air, a result which cannot be accomplished by the use of condensers.

HEATERS

Winter is coming on apace and you will soon be looking over the work's heating system. If you are planning to replace radiators with unit heaters, here's a word of advice: use small units and more of them rather than fewer large ones. You may save a few dollars by buying a few big units, but they will never be satisfactory because you will not be able to get good distribution of heated air. Besides, big units create powerful draughts, for the reason that a tremendous amount of air must be blown through them at one point. Unit heaters require careful layout even when proper sized units are purchased. Convenience requires them to be mounted high with the resulting danger of cold spots along the floor. However, with good layout, proper arrangement of delivery louvres and proper fan regulation, the unit heaters will do a most satisfactory job. Personally we prefer them to radiators. In the meantime we are following with interest the use of floor heaters of which there are two types: one employes piping buried in a concrete floor. We've seen such an installation and it is very satisfactory from a heating and economy standpoint, but it is limited of course to new construction. We wonder what will happen after ten or fifteen years when the pipes rust and are no longer able to hold vacuum. The other system also utilizes piping concealed in the floor, but this system employs pipe trenches with flush metal covers. Hence, the piping is readily accessible.

ROTARY SIFTER

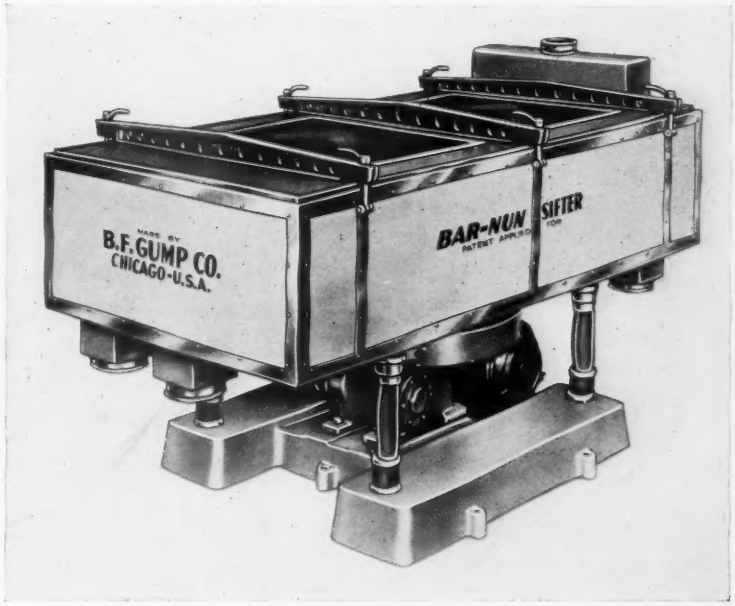
The Bar-Nun Sifter, a rotary motion sifting unit, is a recently announced product of the B. F. Gump Co. of Chicago.

Designed principally for sifting and rebolting flour and other powders, these sturdy, compact units can also be used to advantage for scalping, grading and separating many kinds of dry and granulated materials.

The mechanically controlled, complete rotary motion of the entire sieve area produces exceptionally large capacity per square foot of silk or wire bolting cloth. A complete separation of tailings and finished product is obtained on each individual sieve; and other features include easy accessibility for cleaning and interchangeable sieves for accommodating various conditions for grading or sifting. Sturdy, compact construction includes a re-enforced, heavy duty, cast iron base; cast steel legs equipped with ground and lapped ball and socket bearings; all bearings of the machine run in a bath of oil; sturdy, light weight, wood sifter box reenforced with stainless steel angles, which may be metal lined when desired; and an adjustable, automatic stock distributor. The "throughs" may be delivered to either the tail or head end of the machine.

Bar-Nun Rotary Sifters are driven by a fractional horsepower motor and can be furnished with either 1, 2 or 3 sieves deep for sifting and rebolting, and from 2 to 5 sieves for separating or grading work. Screen areas furnished are 20″ x 30″, 30″ x 50″ and 40″ x 60″. Approximate height overall is 3½ ft.

A four-page bulletin describing these sifting units is available and will be mailed to interested parties upon request.



To make FIRST SALES Easier

ONCE a consumer has used your product, its quality can speak for itself—repeat sales come automatically. The first sale, however, is difficult. Then the PACKAGE must speak for the product—reflect its quality, modernity and the perfect manner in which you protect it so that it will come to the user in the best condition.

A package improvement that will do these things is a great help in making the important *first* sales.

Our business is to furnish wrapping machines to carry out such improvement at the lowest cost.

The cosmetic manufacturer who wants to give his package a smarter appearance . . . the food or drug manufacturer who wants to keep his goods in better condition . . . the candy manufacturer who wishes a package that will display the goods and whet the appetite . . . the tobacco concern that wants an absolutely moisture-proof wrap that will keep cigarettes factory-fresh—all these have obtained the perfect type of wrapping with our machines.

The wide number of models in which these machines are made and the easy adjustability of the machines themselves offer endless opportunities for creating new styles of wrapping.

A package improvement does not necessarily mean increased cost. In fact, we often lower costs for our clients by correcting faults, saving materials, labor and floor space, or cutting waste all around.

What can we do for you? Consult our nearest office.

A few of the many products wrapped on our machines.

PACKAGE MACHINERY COMPANY, Springfield, Massachusetts

NEW YORK CHICAGO CLEVELAND LOS ANGELES

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PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

COATING PANS

We've often wondered why the people who build coating pans do not design the stands so that the pans can be tilted forward to permit dumping the lots. Tumbling barrels used in the metal industries are designed in this way. They are mounted on stands at an angle of 45°; yet they can be completely discharged by turning a handwheel which tilts the barrels forward. It would be quite convenient to be able to tilt a coating pan forward to discharge the lots.

PORTABLE PARTITIONS

In a previous comment we mentioned the fact that on one of our jobs we had used a considerable amount of steel and glass partition. So far this partition has given satisfactory service. It is dust and sound proof, and since it is made in standard sections it can be moved around very easily to suit changing requirements. Many people, however, do not like steel. They will be interested to learn that Globe Wernicke is making standard partitioning in wood, glass and steel which combines the desirable features of all three. We are coming around to the belief that the less partitioning you use in the factory the better off you are. There are a few instances where partitioning is essential; for instance, around the ladies room. Partitioning is required when certain sections of the plant must be dehumidified or otherwise air conditioned. But exhaust systems for dust, fumes and moisture are cheaper than partitions and their use, instead of partitions, opens up the plant and makes it much easier to supervise. Some plant men have a mania for partitions and many plants are little more than a nest of cubby holes.

WORK TABLES

What kind of table do you prefer for hand packaging operations—large ones or small ones? The traditional procedure is to use large ones. Supplies are brought to the table on trucks or skids and unloaded to the tables, which in such instances, must be large enough to accommodate the supplies besides providing adequate working space and stacking room for the finished articles. We feel that smaller tables are better ond from observation and experience they appear to work out more efficiently. A small table is used only to provide work space for the operator. The incoming supplies are left on the truck, which is placed beside the operator, who works from the supply truck to her table and then places the finished articles on another truck which acts as a carrier. Some concerns use three tables for each operator's set-up. One table is fixed for manual operations; the other two are portable and act as trucks. Other concerns use small trucks which serve on the one hand as supply trucks and on the other as finished stock trucks. It is obvious that this system saves labor because it eliminates the stacking of supplies on the table. It also eliminates stacking of the partly finished articles. When several operations accomplished in numerous ways. One of the best, when there is a considerable difference in the gravities of the materials to be separated, is to use a gravity table, such as the one made by Sutton Steele & Steele, Dallas, Tex. This machine is used, for example, in separating weed seed from grass seed. The purity of high grade grass seed is therefore a good index of what can be accomplished in separating materials of the same size but of different specific gravities.

SEPARATION

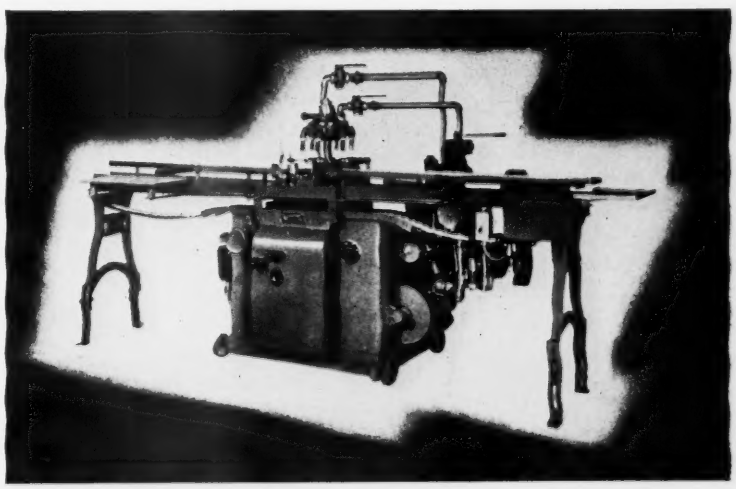
Someday you may be up against the problem of separating materials of the same particle size but of different densities. Obviously such a separation cannot be effected by sifting so recourse must be had to gravity separation. This can be are to be performed and volume is adequate, the use of trucks affords a means of specialization which cannot be obtained with large, fixed tables. In such instances, the operations of filling and capping, labeling, cartoning and wrapping are broken down. The first operator fills and caps, placing the filled and capped containers as she finishes them on the second table. This table then becomes the supply truck for the label operator, to whose bench the truck is then pushed. This operator removes the filled containers one at a time and labels them on her bench. Then, while she still has the container in her hand, she sets it down on an empty truck to her left. The same process is followed for cartoning and wrapping. In packaging small lots it is not possible to arrange the sequence of the work so that a group of fillers, labelers, cartoners and wrappers can work together. It is in such instances that the truck-and-table system applies. Each operator can have one or more trucks containing different orders beside her table without interfering with the steady flow of production. Large hand operations, like assembling manicure kits and gift sets, can best be done along a conveyor belt, because in such cases, the work of the operators can be arranged so that everyone is busy at all times with an equitable share of the work.

LENART MIXER

Since this machine was first introduced into this country seven or eight years ago, we have written a number of notes concerning its manifold uses. Although it was designed as a liquid mixer, we have used it for ointments, creams, soaps and similar semi-solid products. It has been used successfully as a tooth paste mixer, but for such service it had to be practically redesigned. The central baffles were removed and a set of top-driven scraper blades substituted. The action of the blades, combined with the milling effect of the high speed rotor at the bottom, produces a finely dispersed product that requires no further milling. In making ointments and creams containing insoluble powders we have used this unit as a complete, self-contained process unit, in which melting, mixing and milling are accomplished in a fraction of the time required for the usual process. It is important to remember that when the Lenart mixer is so used, it must be discharged before the product cools and sets up solid, as the machine can only discharge itself when the product is still soft enough to flow through an orifice. Abbe Engineering Co., 50 Church St., New York City, makes this machine and they have a one gallon experimental unit which they will be glad to send you for trial purposes. Try it.

KIEFER'S VISCO FILLER

Shown in an accompanying photograph is the new double-head Visco filler made by the Karl Kiefer Co., Cincinnati, O. This machine is used for filling creams, ointments, and similar, semi-solid products and, it is claimed, will produce up to 150 containers per minute.



Something NEW in Tablet Coating Pans!

No. 4 STAND WITH COPPER PAN

The new electric direct drive stand for copper or galvanized iron tablet coating and polishing pans is the first important departure in the design of such pans in many years.

The new Colton Direct Drive Coating Pan is a complete self contained unit having its own direct drive mechanism mounted on the base, thus eliminating all belts and shaftings and making a pan much quieter in operation and very much easier to operate. The shape of these pans and the angle at which they are set are correct to give finest results in coating and polishing and are based on Arthur Colton's many years of experience of building such equipment for the drug industry.

These pans are made of copper or galvanized iron in a complete range of sizes and capacities to suit your requirements. Polishing pans can be lined with canvas at a small extra cost.

Send for our new circular

THE NEW ELECTRIC DIRECT DRIVE STAND

ARTHUR COLTON COMPANY

2620 East Jefferson Ave. Detroit, Michigan

GALVANIZED IRON PAN

JUST PURCHASED MACHINERY

3—Pfaudler 150 gal., tilting type, glass lined, rouge and powder Mixers, with double motion agitator.
5—J. H. Day 100, 200, 400 lb., belt and motor driven Powder Mixers.
3—Day 15, 20, 40 gal. motor driven pony mixers.
2—Kiefer, Metal-Glass 100 gal. Percolating Units.
2—Hobart cream mixers, 5 to 80 qt. capacity.
6—Abbe Jar Mills, 2 to 4 gals. capacity.
6—Abbe Pebble Mills, 25 to 200 gal. capacity.
4—J. H. Day, Eureka, National Powder Fillers.
1—Day 40 gal. motor driven, Pony Mixer, monel can
3—40 gallon Pony Mixers, BRAND NEW.
1—Colton, worm style, tube filler.
1—Colton comb. closer and clipper.
2—Stokes No. 2 gear type tube and jar fillers.
1—Stokes No. 79 Tube Closing and Clipping Machine.
1—Stokes No. 90-D automatic Tube Filling and Closing machine.
2—Colton No. 14, No. 17, Automatic tube filling and closing machines.
8—U. S. Kiefer, International, Alsop, Seitz Filters.
1—Colton worm style tube and jar filler.
20—Glass lined storage tanks, 20 to 500 gal. capacity.

SEND FOR BULLETIN COVERING COMPLETE STOCK OF KETTLES, MIXERS, FILTERS, PUMPS, LABELERS, PULVERIZERS, ETC.

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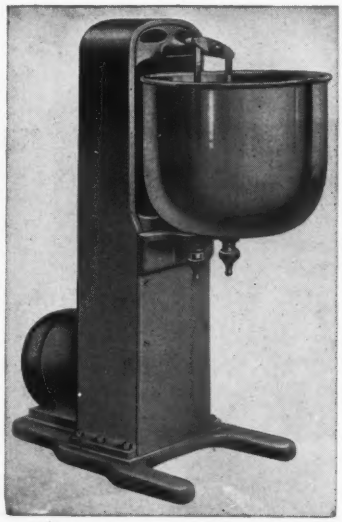
Manufacturers of Tube Filling and Closing Machines

THE ELECTRIC HOMOGENIZER FOR SMALL-SCALE MANUFACTURE

Designed to meet a very definite need in smaller plant production, experimental work, and as auxiliary equipment to large scale production units. It is particularly suited to limited production and for laboratory purposes where extremely high pressures are not required.



Recommended for making all kinds of liquid emulsions and suspensions, and for ointments, creams, lotions, etc.

This homogenizer has an operating capacity of from 12 to 15 gallons per hour. It is sturdily constructed, with long hour heavy duty motor, and meets all requirements of continuous service.

Complete literature, including the booklet "Cosmetic Emulsions and Their Stable Preparation," upon request.

A convenient system of deferred payments available if desired.

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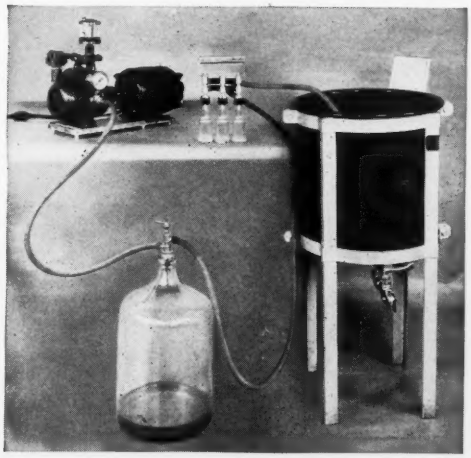
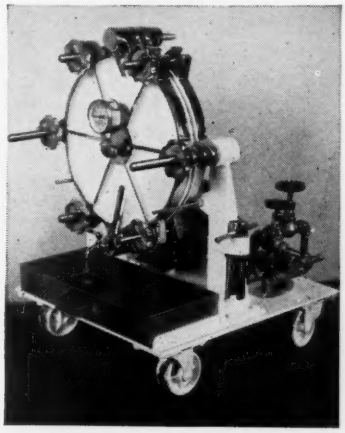
HAVE YOU A FILTERING OR FILLING PROBLEM?

The improved Ertel Portable Vacuum Bottle Filler will give you filling results, filling either a light or real heavy liquid, with a filling capacity depending entirely on the operator. We are willing to place our filler in competition with any portable filler on the market, with a money back guarantee if it does not fill as fast or faster.



The Ertel Bench Model Filter comes complete with pump and motor, uses two Ertel asbestos filter sheets and has a pump capacity of two gallons per minute. It can be increased to a four disk by adding two additional rings. Send us a sample of your liquid and let us show you what our filters will do.

LARGER MACHINES AVAILABLE FOR GREATER PRODUCTION



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The texture and color of a product are often dependent on scientifically *correct* drying. It is highly important, therefore, to select a dryer that is ideal for the perfect drying of a particular product . . . a dryer by a manufacturer with a reputation to uphold. Proctor Dryers have been proved over a long period of time and in a large number of installations to be correct for the uniform drying of pharmaceuticals and cosmetics, and a wide variety of allied products. In some cases, standard units are satisfactory, in others, it is necessary to design special dryers, but in every case, economical, highly efficient and perfectly uniform drying is assured.

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Letter No. 32
—from a leading mfg. chemist says:
"It is simplicity in construction, accessibility to wearing parts, accurateness in grinding . . You will make no mistake in purchasing this pulverizer."

A recent questionnaire sent to a list of nationally known manufacturers who were Mikro-Pulverizer users brought back many enthusiastic replies. 41 leading manufacturers gave unqualified approval. Sturdy, easy to clean, speedy, compact, accurate, low power consumption, low maintenance cost, wide range of applications were among the points most mentioned in their answers.

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A free grind test may point the way to better grinds, large savings in power and labor, lower production costs for you. Send for confidential instruction sheet on test grinding. No obligation.

DUSTLESS . . . No fans, cyclones or separators!

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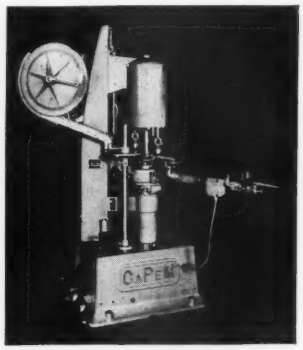

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The Practical
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for creams, lotions and all liquids, which can be used on any type of jar and bottle.

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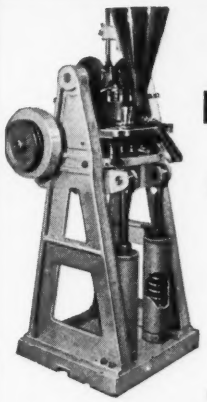

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RUGGED CONSTRUCTION

TWELVE MODELS
Single and Double Action

Without a peer from the standpoint of *rigidity of design*, as well as for *durability* and *low cost of maintenance*.

Preforms of bakelite and other materials

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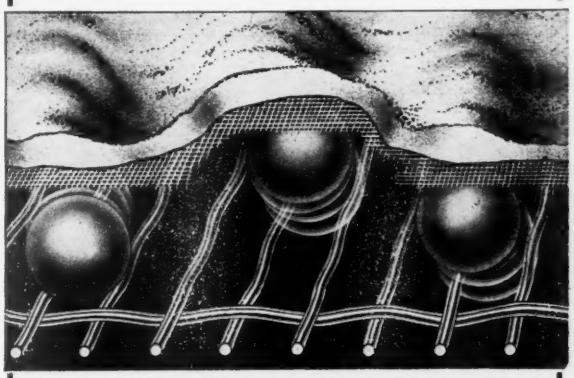
All Single Punch and Rotary Presses Completely Covered by Patents

DAY RO-BALL
Stabilized
Gyrating Screen

14 Sizes
2 to 5 Separations

INCORPORATES—The DAY Super-Active Ball Cleaning Device—One Point Lubrication—A Tried and Proved Screening Principle—Inspection Ports that can be Removed and Replaced while Screen is Operating—Special Tail End Compound Bearings that Eliminate Drag Link on Tail End of Machine.



An exclusive feature with the DAY Ro-Ball "Stabilized" Gyrating Screen is the DAY Super-Active Ball Cleaning Device as illustrated above. This consists of a coarse mesh ball retainer screen which provides eight rebound points for each ball compartment. The balls rebounding against these eight points produce an evenly distributed vibration over the entire screen cloth, resulting in longer life for the screening cloth (particularly where a very fine cloth is used) as the wear is distributed over the whole surface of the cloth instead of a few lines of contact. The extra action caused by these eight evenly distributed rebound points will keep the cloth open and free, resulting in more efficient screening.

Whether your Screening Problem be large or small—coarse or fine—wet or dry—Investigate the DAY Ro-Ball "Stabilized" Gyrating Screen.

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MIXERS · AGITATORS · FILTERS · GLASS COATED TANKS
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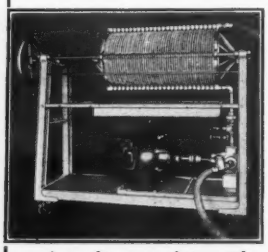

A complete range of sizes with 2 to 100 discs available.

Is possible on any ordinary free flowing liquids such as toilet waters, perfumes, clear lotions, sun-tan preparations, etc. with these filters using Hy-Speed Asbestos discs. For 5 gal. or 5000 gals., we have just the right filter.

Outstanding polish and brilliance is assured with minimum labor and at the lowest cost per gallon with one of these modern filters.

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REBUILT EQUIPMENT

1—Filler Machine Co. 4 spout Filler, monel fitted.
1—U. S. Bottlers 22-spout Rotary Vacuum Bottle Filler, monel fitted, with conveyor.
5—Gravity and Vacuum Bottle Fillers, 2 to 6-spout.
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1—Ferguson "Packomatic" Filler, Weigher and Sealer.
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8—World, Ermold and National semi-auto. motor driven Labelers.
1—McDonald "Weeks" type Automatic Labeler.
2—Ferguson Carton Wax Wrappers.
1—Pkg. Machy. Cellophane Wrapper.
Dry Powder Mixers, several with sifters, lab. size to 4000 lb. cap.
1—Colton 2B Gelatin Coating Machine.
4—Colton Dry and Wet Granulators.
1—200 gal. Pfaudler Jacketed closed Glass-Lined Kettle.
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1—Karl Kiefer Visco Piston type Jar Filler.
5—Pony Mixers, Day and Ross make, 8 and 15 gals.
Tablet Machines—1-Colton 2B, 1/2"; 1-Mulford, 1 1/4"; 1-Stokes O, 3/4"; 2-Colton No. 2 Rotary, 5/8"; 1-Colton No. 37 Rotary, 2"; 1-Stokes Eureka hand, ½"; 1-Colton No. 5, 2½".!
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1—Colton 2-B Tablet Machine.
5—Portable Mixers -- 1/4 to 3/4 horsepower.
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2—U. S. and Kiefer Rotary Bottle Rinsers.

A complete line of used, rebuilt and guaranteed Process Equipment. Send us your inquiries.

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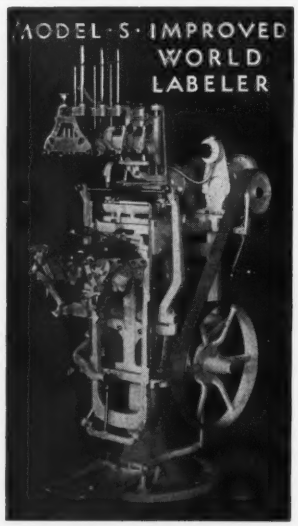

The most flexible labeling machine. Easily equipped for labeling any size bottle or jar. Many exclusive mechanical features, developed by manufacturing experience of more than 35 years.

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Makers of complete line of automatic and semi-automatic labelers.

"Five Times Faster with Half the Labor"

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This compact unit occupies only 2′ 6″ x 2′ 6″ floor space, yet is capable of sifting up to 5000 lbs. per hour.

ABBÉ BLUTERGESS TURBINE SIFTER

(PATENTED)

● And many large, medium and small producers of face, tooth and drug powders report similar experiences with this remarkable Sifter.

● The Abbé-Blutergess Sifter is made to handle from 30 to 5000 lbs. of powder per hour, with less operating supervision, in less space than any other machine available today. It is quiet—dustproof, easy to clean and change screens, sifting powders of highest quality through any screens, any mesh.

● Let us send you a trial unit or make a test run on your product in our laboratory.

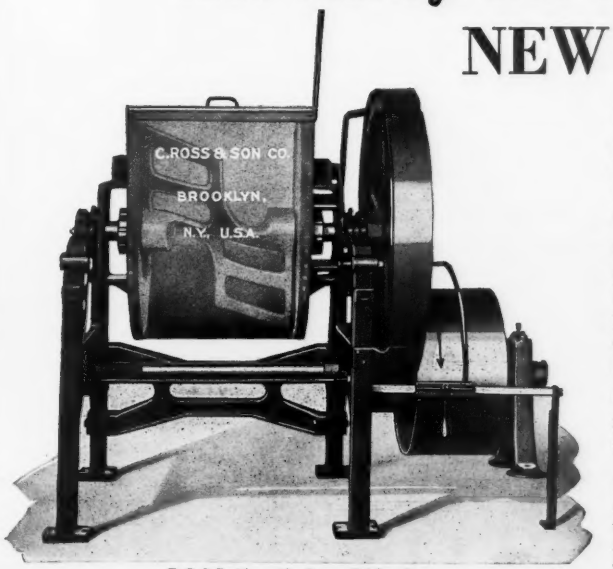
Ask for Bulletin No. 41B

ABBÉ ENGINEERING CO.

56 Church St. (COrtlandt 7-1115) **New York, N. Y.**

Save Money and Time by Using

NEW ROSS MIXERS



ROSS No. 42 One Bbl. Size Kneading and Mixing Machine.

For the combining and mixing of pastes and semi-dry materials, the improved type ROSS Mixers, as illustrated, offer you thorough mixing, economy and speed.

These new ROSS Mixers are built with extension type bearings fitted with improved stuffing boxes. They are equipped with the latest type tilting troughs, and heavy, compound geared drive. Frames are heavier and of improved design. These Mixers can be furnished with gates when desired.

Other refinements combine with the above features to give the new ROSS Mixers unequaled efficiency.

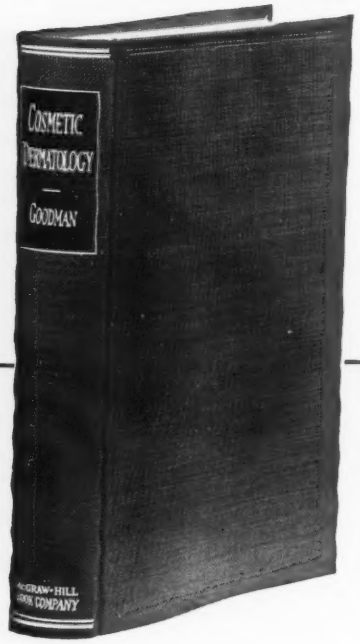
Write for Catalog 14-C covering our Single and Double Bladed Type Kneading and Mixing Machines with mixing capacities of from one quart to 150 gallons. Send, too, for Catalog 10, illustrating and describing our standard mills and mixers for use by drug and cosmetic manufacturers.

CHARLES ROSS & SON COMPANY

Manufacturers of Mixing and Grinding Machinery Since 1869

83 EMERSON PLACE . BROOKLYN, N. Y., U. S. A.

NOW--Facts, formulas, and data you can use *in the preparation of cosmetics that fulfill sound dermatologic purposes*



Here is Dr. Herman Goodman's new book, bringing you his dictionary of ingredients and shelf-tested formulary of cosmetic preparations, made doubly useful by a thorough discussion of their place and scope in both hygienic and remedial cosmetics. Invaluable for cosmetic manufacturers and chemists, etc., who want a guide to the preparation of better cosmetics, in which the experience of an outstanding specialist are brought to bear on important distinctions between non-medical and medical functions.

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By HERMAN GOODMAN, M. D.

With a foreward by S. L. MAYHAM

Editor, The American Perfumer

591 pages, 6 x 9, $6.50

Partial list of subjects covered

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Baldness
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Para-methyl-phenylacetaldehyde has a similar odor to phenylacetaldehyde, but having also an almond note, suggestive of benzaldehyde. It is a viscous liquid and suitable for use in syringa, lilac, hyacinth, narcissus and fancy odors. It should be stored in 10 per cent. solution in pure benzyl alcohol as it is liable to polymerize.

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SHAVING

The skin and the hair of the face are subjected to a number of normal influences having direct effects on the problem of shaving. Externally these influences are exposures to weather, wind, solar radiation and the effects of shaving, which include facial preparation, trauma due to passage of the razor over the skin surface, after-shave care. Internal influences include the diet, the excretory mechanism of sweat and sebum, growth and replacement of epidermis and hairshaft, and the circulatory mechanism of the true skin.

There are two types of hairshafts covering the face: the lanugo hairs, whose average diameter is considerably less than 0.025 mm., and the coarser hair, with diameters ranging from 0.091 to 0.230 mm. The latter class is of primary interest in shaving.

The rate of growth of hair is fastest immediately after shaving; it then becomes slower until a normal average of from 11 to 12 mm. a month is attained. This normal rate is not affected by shaving or cutting, nor is the thickness affected.

Hair on the face never grows out perpendicularly, except occasionally on the anterior curvature of the chin. The actual angle between hairshaft and epidermis varies according to the individual and according to the portion of the face. The range is ordinarily from 31 to 59 degrees and in some cases the hair may lie flat.

The thickness of the stratum corneum of the face varies between 0.0067 and 0.033 mm. The thickness of the epidermis, including the stratum corneum, varies between 0.2 and 0.3 mm. The thickness of the cutis vera ranges between 3.5 and 4.6 mm.

The true cause of ingrowing hairs is not known except in keratosis pilaris, but slanting wounds through the corium above the hair root and also traumas of the skin surrounding the hair shafts seem to have a predisposing action. Some writers have erroneously ascribed such traumas to "dull razors." Experience indicates that trauma occurs less with dull safety razor blades than with sharp ones.

The skin surface is furrowed and wrinkled. A very slight stretching of the skin was sufficient to make the surface essentially smooth; more severe stretching caused the disappearance of deep wrinkles; still more stretching, especially over the bony parts of the face, resulted in the protrusion of the skin at the site of the hair follicles, giving the appearance of gooseflesh.

The chemical composition of hair has been shown to be chiefly keratin, a complex organic compound containing nitrogen and sulfur. Sulfur occurs in the form of cystin and the stratum corneum consists mainly of keratin. Keratin is insol-

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uble in water, which it readily absorbs. The tensile strength of hair is lessened by the absorption of water. Hair also takes up oily sebaceous secretion, making it more difficult for water to enter and soften the hair.

The primary purpose in preparing the face for shaving is to soften hair, while the less important secondary purpose are to lubricate the razor blade, provide a stiff supporting medium for the hair shaft, protect the skin from trauma, and to provide antiseptic effect. Dull blades, incompletely softened hair or improper shaving angles are, however, the main causes of unsatisfactory shaving.

Tests indicate that hot water is far superior to cold water in softening hair prior to shaving, soap is better than plain water, and gray or white hair is more difficult to soften than corresponding pigmented hair. Not less than three minutes' preparation is required to soften the hair for most satisfactory shaving.

Desirable properties of shaving soaps are voluminous lathering quality, resistance to rapid drying on the skin, freedom from the possibility of causing skin irritation, and assistance in wetting the hair thoroughly. The first three characteristics are dependant upon the chemical nature of the soap, while the composition has little effect upon the fourth. The best shaving soap devised does not compensate for the use of cold water or for a dull blade. The beard can also be softened by latherless creams, some of which may contain a wetting agent such as sodium lauryl sulfate. The softening action of these preparations is slower than that of soaps.

Shaving soaps usually have a pH of from 8.5 to 9.5 while latherless creams are more acid, with a pH value often under 7.0. The use of either type is not likely to result in skin irritation, but the more acid brushless creams may be responsible for more rapid dulling of razor blades.

Like other planing tools, a razor blade should be used with a definite clearance angle between the trailing face of the blade and the freshly cut surface of the hair. The angle should obviously be small enough to prevent the planing off of the stratum corneum as well as the hair. The clearance angle of a razor blade in a safety razor naturally differs from the effective shaving angle by a constant amount.

The best effective shaving angle is a compromise between conflicting items of shaving satisfaction, and this compromise may not lie at the same point for all persons. In actual shaving practise, increasing this angle always resulted in an increase in the discomfort felt during shaving, in an increase in the depth of minor excisions of horny layer surrounding the hairshafts, and in a lessening of the effort required to get a close shave. The minimum amount of injury to the skin was found with effective shaving angles at 25 degrees or less. Razors having such angles might have special applications in unusual cases of extremely sensitive skin, but angles of from 28 to 32 degrees give many men a better combination of freedom from discomfort during shaving, ease of close shaving and minimum damage to the skin.

Discomfort during shaving is usually associated with a pulling effect. This effect increased as the blade became dull, if the hair was improperly softened, or if the effective shaving angle was increased. This discomfort was practically absent at angles of 20 to 25 degrees and was conspicuous over 40 degrees.

Examination of the freshly shaved skin led to the observation that trauma of the skin consisted principally in the excision of the horny layer of the epidermis; such damage occurred mainly at the follicular hairshaft openings. This localized traumatism increased in proportion to all the factors that tend to promote a close shave such as the use of a new blade at a large shaving angle; the use of thin lathers or plain hot water; excessively stretched skin; shaving against the grain; shaving the same area more than once; increasing the pressure between the razor and the face.

Traumatism also increased as the preparational period was shortened or inadequate. It decreased when the interval between shaves was extended to two days or more. Brushless shaving creams tended to protect the skin from excessive injury. A blade that had been dulled by being used for at least one shave rarely cut into the capillaries on succeeding shaves.

The purposes of after-shave treatment include the control of bleeding from cuts, antiseptic and astringent application, replacing a protective covering lost by the removal of sebum and epidermis.

To control bleeding, the use of bismuth subgallate is recommended, since it does not produce a burning sensation on an open cut. Fifty and seventy per cent. solutions of alcohol are satisfactory antiseptics, as is a fifty per cent. alcoholic solution containing 4 per cent. of salicylic acid. *L. Hollander and E. J. Casselman, J. A. M. A.*

BATH SALT INGREDIENTS

Various salts are used, both singly and in admixture, as a bath salt base. As mentioned earlier, ice cream salt and crushed or riced rock salt were quite widely employed, but they fell into disuse. Salt, that is, sodium chloride is convenient to scent and tint since it is anhydrous, only slightly hygroscopic and difficult although highly soluble which makes it easy to tint with an aqueous solution of color. The crystals being cubical and available in any desired mesh of reasonably uniform size make an inviting looking product. Salt is valueless as a water softener, of course, and if freely used, tends to retard the lathering of soap. On the other hand, it is supposed to impart a rather refreshing effect on the skin.

Sodium carbonate finds some application both here and abroad. The monohydrate is the salt used, of course. It makes up attractively and is stable but is much too harsh for regular use. Trisodium phosphate may be used in either the fines, globular or flake form. It is difficult to tint and its pH in solution of the usual concentration is too high to be used alone. Then, too, its solution in the bath is far from clear, but this lack of clarity hides more or less the undissolved portion. Di-sodium phosphate is perhaps more suitable for all but the hardest waters, but it is appreciably higher in cost.

Borax is finding constantly wider application. It tints readily and has little tendency to affect adversely perfume compounds. It is available in various granulations from powdered on up. The 6-mesh that as received looks quite like whole rice makes an attractive appearance on packaging in any of a number of tints. Borax is quite mild in the bath. The only disadvantage is its difficult and sparing solubility. In the course granulation, as the crystals are washed white, the deception—that is if it is a deception—that they are only surface tinted, is uncovered to the user.

Sodium sesqui-carbonate is mild and a satisfactory water softener. Being a definite chemical compound, it does not change in composition or physical appearance whether packed in a sealed container or a package that is not air-tight. The fine, needlelike sparkling white crystals make it about the only base that can go to market untinted. It also lends itself to trick packs,—that is irregular layers of several different tints, including untinted, in one transparent container. Two or more colors of other salts of coarser granulation in a single jar usually run together in transit and the unique effect is ruined. Sesqui-carbonate is quickly and completely soluble in water so the dye solution used should be alcoholic.

Tetra sodium pyro-phosphate has unusual properties that may well not be overlooked. It lends itself to admixture in low percentages with other salts. It prevents hard bath water from clouding up badly as it is softened. As soap is freely used much less "ring" is formed in the tub. On the other hand, it is rather dangerous in that it makes the bottom of the tub slicker still, particularly if not completely dissolved. *R. H. Auch, Soap.*

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ADVANCING THERAPY

DENTAL DESENSITIZER

A new formula for a dental anesthetic, in the form of both paste and liquid, was announced at the seventy-ninth annual convention of the American Dental Association by Dr. Harold A. Osserman of New York.

The paste-like anesthetic contains a new synthetic chemical developed with the assistance of Dr. A. Taub of the College of Pharmacy of Columbia University. The liquid is a mixture of familiar chemicals. Dr. Osserman called the new anesthetic "thymol aminobenzoate," as in both forms it contains thymol and ethyl aminobenzoate. The new chemical is p-propyl m-cresol aminobenzoate. Dr. Osserman explained that he found a paste would be easier to manipulate and would come closer to the ideal sought.

Dr. Osserman reported that the anesthetic was especially effective on sensitive teeth and said it had given perfect results in more than 80 per cent. of the cases of sensitive and hypersensitive teeth on which it was used. The first testing was in the dental clinic of Beth Israel Hospital in New York, where it was used in 361 cases. Since writing the paper, Dr. Osserman said, he had made 500 more tests.

The formulas committee of the First District Dental Society has already tested the compounds and determined their efficiency but the committee believed the proper province for its evaluation was the Council on Dental Therapeutics of the American Dental Association. Presentation of the paper was a step toward this evaluation.

Dr. Osserman told reporters he had patented the new product and had made arrangements with a chemical company in Brooklyn for its manufacture and sale. He said the liquid anesthetic could be prepared by any dentist, but that the paste could be procured only from the manufacturer, because it contained the new chemical.

Dr. Osserman's formulas, by weight, follow:

Anesthetic Paste

P-propyl m-cresol aminobenzoate . . 1 part
Ethyl aminobenzoate . . . . . 3 parts
Thymol . . . . . 1 part

Anesthetic Liquid

Thymol . . . . . 7 parts
Acetone . . . . . 1 part
Ethyl aminobenzoate—Add to make a 25 per cent solution.

Dr. Osserman also made public a formula for a "dehydrating and cleansing fluid" to be used before applying the anesthetic. This was composed simply of 3 parts chloroform and 1 part acetone.

QUININE IN PNEUMONIA

Ballmann points out that the injection of quinine permits an energetic attack of the cause of pneumonia without disturbing and moving the patient. At his hospital more than 2,000 patients were given injections of quinine preparations and the number of cases in which complications developed was small. He shows that the injurious effects of the injection of quinine preparations which have been reported in the literature could have been avoided if the necessary caution had been observed. He cites cases in which brachial nerves were paralyzed because inexperienced assistants or nurses had injected the quinine preparation into the arm. Quinine preparations, he says, should be injected

"Well, Dr. Fishbein is no obstetrician, and my husband is."

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by the physician himself and only into the gluteal muscle with a sufficiently long needle. If these rules are observed, the treatment of pneumonia with quinine injections is without danger and, compared to the merely symptomatic treatment, it shortens the disease process and reduces the number of complications and the mortality rate. *Deut. Med. Woch.*

INTESTINAL TOXEMIA

Schoenbaum and Moomaw show that the colon is the principal focus of infection in toxemia and should receive at least as much attention as the teeth, tonsils and other structures. Many constitutional disturbances as well as those of the abdominal cavity have their origin in a toxic condition of the enteric tract. The so-called normal flora of the intestinal canal may assume pathologic activities under favorable conditions. Measures aimed at the detoxification of a septic colon will often help in solving a difficult diagnostic problem. In discussing the treatment, the authors present evidence on the detoxifying effect of castor oil and its conversion product, sodium ricinoleate. Virginia Medical Monthly.

REDUCING BLOOD PRESSURE

Wollheim demonstrates that the urine of normal subjects and of horses contains a blood pressure reducing substance. The urine of patients with essential hypertension is either entirely free from the substance or it is present in only small quantities. The author describes the chemical and physical behavior of this thermostable substance. It is well characterized and readily differentiable from other blood pressure reducing substances by its behavior during boiling with acid and lye and toward the usual solvents and precipitants and by the use of dialysis and electrolysis. A blood pressure reducing substance that is essentially the same can be extracted from the posterior lobe of the hypophysis. The physiologic action of the substance that is extractable from the urine as well as from the posterior hypophysis consists in a considerable dilation of the peripheral vessels. Its blood pressure reducing effect persists for comparatively long periods and in this respect it differs from all formerly known blood pressure reducing substances. Pure preparations do not influence the heart, the respiration or the intestine. The intramuscular injection of the substance reduces the blood pressure of patients with essential hypertension. *Acta Medica Scandin.*

CETYL ALCOHOL FOR ENTERIC COATINGS

Barium sulfate tablets coated with various mixtures of cetyl alcohol, shellac and mastic were administered to a group of subjects and the disintegration of the tablets followed by means of X-ray examination. The following conclusions were noted:

Cetyl alcohol as an enteric coating material was 81.11 per cent. efficient; cetyl alcohol-shellac as an enteric material was 70.73 per cent. efficient; cetyl alcohol-mastic as an enteric coating material was 97.87 per cent. efficient. In the case of cetyl alcohol-mastic coatings, the highest percentage of the tablets disintegrated in the ascending, the transverse and descending colon. The efficiency of this type of coating can be increased by decreasing the amount of mastic use in the preparation of the coating mixtures. *L. M. Mills, J. Am. Pharm. Assoc.*

HAIR DISCOLORATION AFTER PERMANENT WAVE

Siemens describes three cases in which greenish blue or greenish black discoloration of the hair occurred after a permanent wave. The clinical histories of the patients and experiments conducted by the author indicated that when the scalp has been treated with mercury preparations, the customary methods of permanent waving produce ugly, smoky gray to greenish black discoloration of the hair. In the reported cases, substances containing mercury had been applied because of psoriasis of the scalp. It was found that the discoloration develops even if the mercury preparation has been applied weeks or even months before and the hair has been thoroughly washed. Persons with blond hair particularly should be warned of this. The color reactions could be reproduced in vitro. *Munich. Med. Woch.*

SULFANILAMIDE AND DERIVATIVES

Different forms of aminobenzenesulphonamide compounds were tested on mice for therapeutic efficiency and toxicity. The following conclusions were drawn:—(1) The oral preparations, *p*-benzylaminobenzenesulphonamide and *p*-aminobenzenesulphonamide, are equally effective in experimental streptococcal infections. The former is very much less toxic than the latter. (2) Of preparations for injections, Prontosil (soluble) and disodium-*p* (*y*-phenyl-propyl-amino) benzenesulphonamide-*a*-*y*-disulphonate are equally effective in experimental streptococcal infections; the latter is less toxic than the former. (3) *p*-aminobenzenesulphonamide is effective in experimental meningococcal infections. *p*-benzylaminobenzenesulphonamide and disodium-*p* (*y*-phenyl-propyl-amino) benzenseulphonamide-*a*-*y*-disulphonate are inactive. (4) Two diaminobenzenesulphonanilide compounds have been found to have a considerable polyvalent action; they are well tolerated and one protects against streptococcus, pneumococcus, and meningococcus, the other against streptococcus and pueumococcus.—*L. E. H. Whitby. Lancet.*

COD LIVER OIL TREATMENT OF SKIN ULCERS

Epstein describes thirty-one cases of ulceration of the skin treated by the local application of cod liver oil and anhydrous wool fat dressings, with discouraging results. Slight ulcerations were treated with anhydrous wool fat alone. Epithelization proceeded more rapidly with the high vitamin preparation, although healthy granulation tissue was formed equally well with anhydrous wool fat alone. An ulcer that recurs after being "healed" with either of these preparations does not respond as well when treated with the same preparation a second time. "Good" results were obtained in only two thirds of the cases. Cod liver oil alone does not constitute sufficient treatment, as it does not offer permanent results in the majority of cases of ulceration of the skin. *Amer. J. Surgery.*

PROSEPTACINE

During the past winter 150 cases of scarlet fever, 47 cases of erysipelas and 18 cases with other types of streptococcal infection were treated with Proseptacine (p-benzylamino-benzenesulfonamide, or a benzyl derivative of sulfanilamide). The doses given varied from 0.75 to 6.0 g. daily, according to age, and were administered orally in the form of tablets. The maximum amount given to any one patient was 22.5 g. No cases showed any cyanosis or signs suggesting sulfhemoglobinemia. In scarlet fever patients the compound reduced the number having complications from 56 per cent. in the control series to 35 per cent. In erysipelas the spread of the disease was arrested in twenty-four hours in all of the 47 cases. A similar result was seen in other types of streptococcal infection. *B. A. Peters and R. V. Havard, Lancet.*

INSULIN AND INSANITY

All the cases of schizophrenia treated by Larkin with the daily insulin shock method have been advanced cases with marked symptoms of dementia praecox. Five patients have completed treatment. Three have apparently recovered. The other two are still being watched, their insight being developed by daily talks with a view to their adapting themselves well to life when they shall have returned to the outside world. Of the two who have not recovered, one is greatly improved and the other is unchanged. All except the one patient in whom the treatment was not beneficial have put on weight while actually under treatment. A sixth has already lost his delusions and hallucinations, after an unremitting attack lasting eighteen months. The starting dose of insulin is 20 units intramuscularly, the patient fasting. This is increased daily by 5 or 10 units according to progress. A shock dose is usually 130 units. *Brit. Med. J.*

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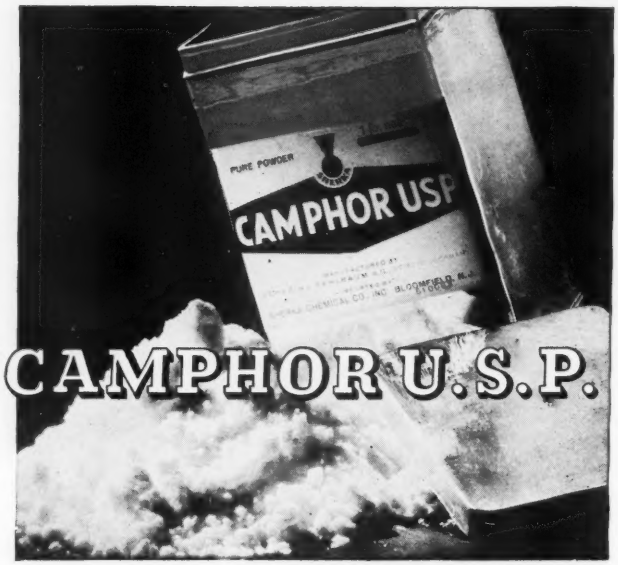

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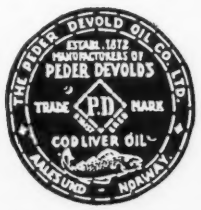

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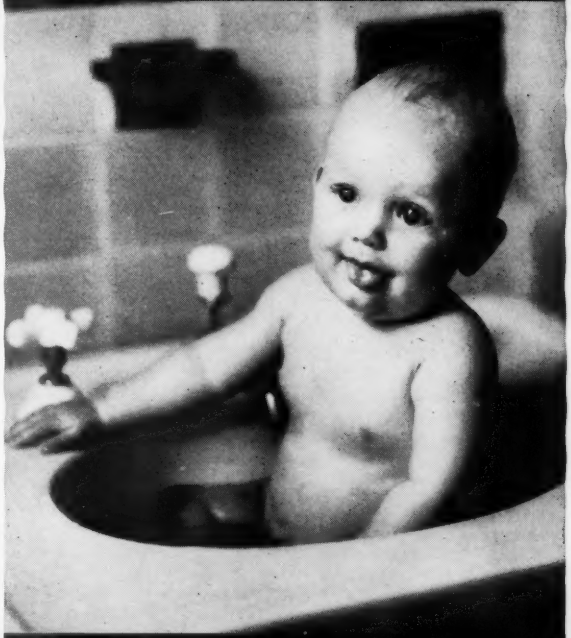

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DEPILATORY WAX

I am interested in depilatory wax for use in my practice for removing superfluous hair. Could you please give me a formula for a product of this type? Brooklyn.

The following formulas are made in the same way, that is, melt the ingredients together and cast into blocks or sticks. For use they are merely softened by heat, applied to the desired area, and allowed to harden.

Carnauba wax		20
Rosin	80	60
Linseed oil		5
Beeswax	20	15

PERMANENT WAVE SOLUTION

At your suggestion I experimented with mixtures of ammonium chloride and sodium sulfite to give a permanent wave solution without the actual addition of ammonium sulfite which is difficult to obtain pure. On testing, the solution proved to be entirely satisfactory for hair that takes a curl easily but does not work as well with fine hair. Can you suggest any modifications that might improve this mixture? Evanston.

Apparently the solution you obtained is not sufficiently alkaline to be completely effective. The solution may be improved if you will use the same weight of ammonium carbonate in place of the ammonium chloride you now use. Ammonium carbonate is more alkaline in itself and, in addition, when it reacts with sodium sulfite, will give sodium carbonate, which is still more alkaline. A small amount of borax may also be added, for its mild alkaline effect.

WHITENING AGENT FOR FALSE TEETH

I am making a powder mixture which, when dissolved in water, cleans false teeth without the necessity of brushing. My preparation contains trisodium phosphate and works quite well but I would like to improve it by adding some sort of a bleaching agent to remove nicotine stains. Could you suggest some compound that would serve my purpose? Brooklyn.

Nicotine stains are deposits of tar left by tobacco smoke and are likely to be quite difficult to bleach. You might try, however, a small percentage of chloramine or bleaching powder in your mixture. Either of these compounds is relatively stable in the presence of alkali and liberates chlorine, a powerful bleaching agent. If this effect is too drastic, or the taste too unpleasant, you can use a solid peroxide compound, such as sodium perborate which is soluble in water. Magnesium or zinc peroxides, which rapidly liberate oxygen in the presence of water, should be stable in mixtures with dry trisodium phosphate and might be more energetic as bleaching agents than the perborate. In this case, however, look out for the formation of insoluble magnesium and zinc phosphates leaving an insoluble coating on the teeth.

ANTISEPTIC BABY OIL

We wish to manufacture an antiseptic baby oil and would like your assistance in finding an oil-soluble antiseptic that will be non-irritating and odorless. White Plains.

Probably your best bets for an oil-soluble antiseptic would be oxyquinoline base, oxyquinoline benzoate, chlorthymol, benzoic acid, para-chloro-meta-cresol, etc. The problem, is, however, more difficult than might be expected, since it may lead to a complete reinvestigation of methods of determining antiseptic effect.

Agar plate or cup methods of testing could not give reliable results since they depend upon a water medium which does not mix with oils. Moreover, since bacteria are for the most part themselves aqueous, it is difficult to see how an entirely oil-soluble antiseptic could reach them at all. Some of the above mentioned compounds might be useful, however, because of sufficient solubility in both oil and water. The antiseptic substance must be soluble enough to be carried by the oil and yet soluble enough in water to become distributed in water in bactericidal concentration when the oil and water are mixed.

readers'

GLYCERYL MONOSTEARATE CREAM

I was given a formula for a cleansing cream using glyceryl monostearate as the emulsifying agent. Since this substance is not available here, I made it by heating molecular proportions of glycerine and stearic acid. The cream made with this compound separated a great deal of water on standing, and I should like to know what caused this difficulty. Shanghai.

The glyceryl monostearate you made does not correspond to the commercial product. The latter always contains a certain excess of free stearic acid as well as about 5 to 10 per cent. of potassium stearate. The combination of potash soap and glyceryl monostearate is the emulsifying agent, not either one alone. Moreover, your formula does not contain enough glyceryl monostearate to be stable. A better formula, made in the same way, would be the following:

Glyceryl monostearate	15.0
Petrolatum	10.0
Mineral oil	20.0
Lanolin	5.0
Water	50.0

You had better buy the glyceryl monostearate, importing it if necessary.

MILK OF MAGNESIA CREAMS

We are interested in the manufacture of various types of face creams containing magnesium hydroxide. We would appreciate any information you could supply us as to methods of incorporating magnesium oxide or hydroxide in such cosmetic creams without disturbing the emulsifying properties produced by the action of borax or beeswax. New Haven.

The information on this matter that we give you will do you little good, since it comes from U. S. Patents 1,999,160 and 1,999,161 relating to cleansing creams containing magnesium hydroxide and assigned to the Chas. H. Phillips Chemical Co. A skin cream contains magnesium hydroxide, an oil, an alcohol containing at least 16 carbon atoms, a wax, and water. The oil used is preferably a mineral oil, and may be semi-solid such as petrolatum. An animal or vegetable oil such as olive oil may be used, preferably as an addition to petrolatum. An alcohol used may be cetyl or stearyl alcohol or, preferably, is cholesterin, isocholesterin or oxycholesterin; it may be mono-, di- or polyhydric and should have an affinity for water. Waxes specified are ceresin, paraffin, spermaceti and beeswax. Other ingredients such as ethylene glycol, glycerine, perfumes, and coloring matters may be added. According to examples, a suspension containing magnesium hydroxide, ethylene glycol and water is mixed, heated to

questions

50° C. and poured with vigorous stirring into a heated mixture of cholesterin or oxycholesterin, petrolatum and ceresin wax. After emulsification the composition is allowed to cool and perfume is added.

SPIRIT GUM SOLVENT FOR TOUPEES

We use Spirit Gum to hold men's toupees fast to the head. This hardens and has a tendency to pile up on the front edge of the toupee. Toupees are cleaned with naphtha and gasoline but this does not remove the hardened Spirit Gum. What will dissolve the Spirit Gum without injury to human hair and silk foundation?

Or possibly there is some other gum that could be used to make the front edge of the toupee adhere that would not be so difficult to remove and would have a better odor. Cincinnati.

Spirit gum is made from rosin two parts, castor oil one part and alcohol eight parts. Since alcohol is the original solvent, there is no reason why it should not re-dissolve the gum once it has hardened. Rosin is also soluble in turpentine. In either case, first treat the toupee with either alcohol or turpentine and then give it the usual cleansing treatment with naphtha and gasoline. Since spirit gums are often made with completely denatured alcohol, acetone or isopropyl alcohol, this is the source of the odor you wish to avoid. An obvious solution would be the use of a better smelling grade or type of alcohol.

ABRASIVE PASTE

We are making a paste containing an abrasive substance which soon wears out our mixing machine. Our present equipment consists of a kettle with a two-way agitator but this type of kettle is quite expensive, though, aside from excessive wear, it gives us a very satisfactory product. We though that possibly we could use a homogenizer by running a stream containing the solids in oil in through one side and water at the proper temperature in at the other. It will be appreciated if you can advise us how to solve this problem and also if you will recommend the equipment in which to do it. Chicago.

This is not a homogenizer job. Although, if the paste is light enough, you might be able to homogenize it, the abrasive character of your paste, since it is harsh enough to wear out a slow-moving kettle mixer, would cut homogenizer valves to pieces in a very short time. Anyway, you haven't enough production to set up an elaborate, continuous method. If we were doing it, we would give the batch a short preliminary mix in your present type of mixer and then we would finish off in a buhr stone mill. By preliminary mixing for a short time only you can cut down the wear on your mixer to such an extent that it will no longer be a factor. The buhr stone mill will not be affected by the abrasive substance to any appreciable extent. But be sure to specify buhr stone as many standard stone mills are equipped with aesopus stone which is not nearly as hard. This procedure will give you a very fine product at a good speed. You could get a mass mixer made of a hard material such as stellite, but this would be far more expensive.

BOTTLE SEALING

Can you supply me with a satisfactory formula for a gelatine bottle sealing compound? The bottle is to be dipped into this composition and then set aside. Milwaukee.

The following simple sealing compound has withstood show window temperatures as high as 170° F. without losing color or running and is so balanced that it will dry quickly and not crack on drying. The caps cut like rubber and form a neat finish. The cap is not waterproof but may be made so by dipping into a weak solution of formaldehyde. The best dipping temperature is 110° F. Water 8 ounces, glycerine 2 ounces, liquid phenol ½ drachm. Pour this onto 4 ounces of powdered gelatine. Heat on the water bath until dissolved and add water-soluble nigrosine if desired for a black color.

EFFERVESCENT BROMIDES

How can I manufacture an effervescent bromide? Winnipeg.

You can make such a preparation as follows: potassium bromide 8 parts, sodium bromide 8 parts, ammonium bromide 8 parts, sodium bicarbonate 10 parts, citric acid 4 parts, tartaric acid 4 parts, sugar 2 parts. Moisten with three parts of absolute alcohol, granulate, and dry at 40° C. This mixture can be compressed into tablets. You cannot make any effervescing preparation without guarding against excessive moisture in the air: most firms making products of this type have installed air-conditioning.

GRITTY OINTMENTS

Will you please examine the inclosed formula and tell us why the product gets gritty? We don't want to mill it because the chemicals in the ointment would require a mill made of special materials which are quite expensive. Is there some way of processing a product such as this so the milling will not be necessary? New York.

Your ointment contains a number of high melting substances which are crystallizing or separating out of the product and causing the grittiness. Apparently you stop mixing too soon. Continue the mixing operation until the ointment reaches room temperature.

LIQUID POWDER

We make a liquid powder formula containing zinc oxide, precipitated chalk, kaolin, glycerin and water. After standing a few days this product starts to effervesce or to describe the reaction more accuralely—erupt. We at first thought this might be caused by decomposition of the chalk so we substituted talc for it with no better results. Our next thought was that the kaolin might be contaimnated, causing bacterial decomposition of the glycerin. The kaolin was omitted but the trouble persisted. Occasionally the materials scum or frost the bottles. In short we have tried everything but invent new materials. All materials used were either U.S.P. or C.P., water was triple distilled and a check of the glycerin showed it to have a pH of 7.2, or approximate neutrality. We would certainly appreciate any advice or suggestions you may care to make. Los Angeles.

Since the materials in your formula are all compatible with each other, your difficulties obviously arise from procedure. Apparently air is being occluded with the dry material, which takes several days to hydrate thoroughly, and this escaping air collects at the top of the sample bottle, causing the eruption to which you refer. We suggest that you use boiling water in making the product and mix thoroughly with a high speed mixer. Allow the batch to stand for twenty-four hours and before filling strain through unbleached muslin. Straining is important because it not only removes specks but also the flocculent material which causes the scum to which you refer. In straining the suspension, you will have to brush the product to and fro very gently on the straining cloth, or else the entire precipitate will be retained on the cloth.

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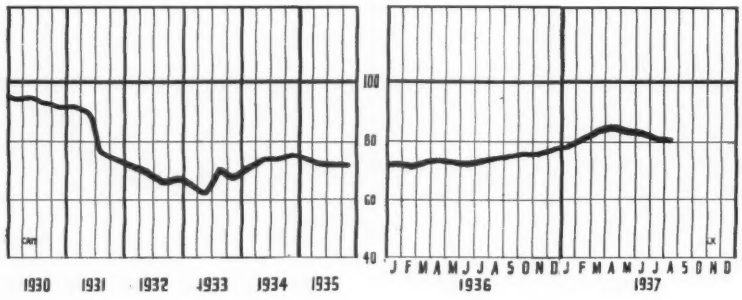
Sumatra 7c
Cedar leaf oil 15c
Chamomile flowers, Hungarian 14c
Cinnamon oil $1.50.
Citronella oil, Java ½c
Digitalis leaves 10c
Elm bark 2c
Erigeron 10c
Fennel 5c
Kamala 1c
Karaya gum 2c
Orris oil, concrete 25c
Peppermint oil, Natural 5c
Redistilled 5c
Pine needle oil 5c
Tansy oil 25c

Down

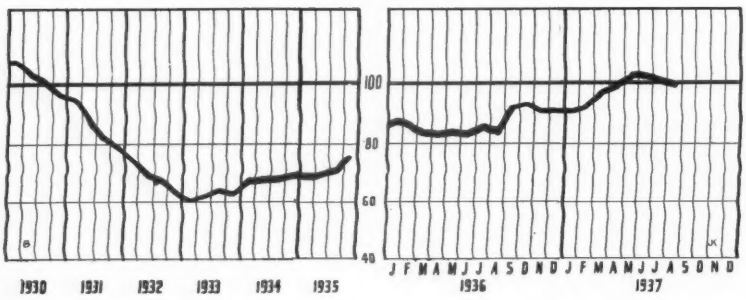
Almond oil, sweet 5c
Balsam, Copaiba para 4c
Peru 10c
South Amer. USP 2c
Buchu leaves 1c
Cajuput oil 2c
Chamomile flowers, Roman 3c
Clove oil 20c
Colocynth pulp 6c
Coltsfoot leaves 1c
Dandelion root 2c
Ergot 30c
Eucalyptol 7c
Golden seal root 30c
Juniper berry oil 10c
Lemon grass oil 10c
Lycopodium 10c
Mace oil, dist. 10c
Nutmeg oil 15c
Patchouli leaves 1c
Pimento berry oil 20c
Rosemary oil 6c
Saw palmetto berries 10c
Vanilla beans, Bourbon 40c
Wahoo bark of root 2c
Wormseed oil 5c
Wormwood oil 10c

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



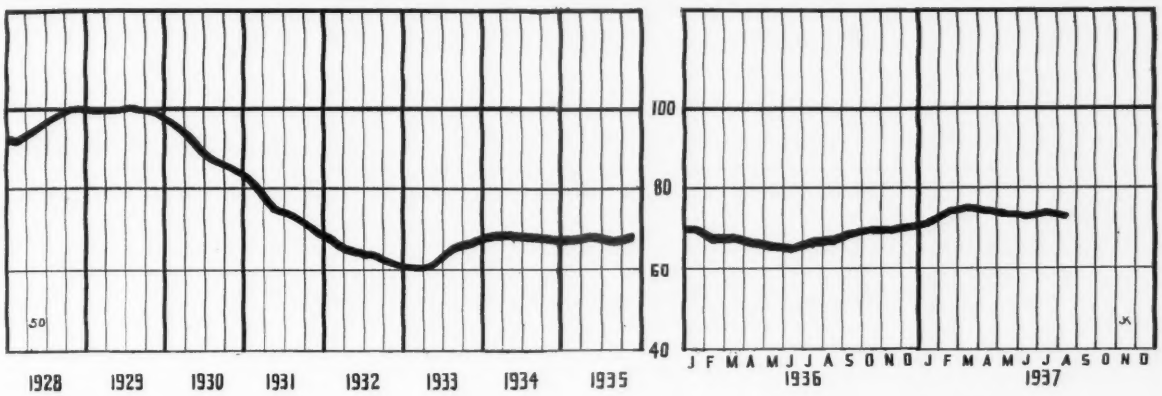
Cosmetic raw materials also averaged lower, the index declining to 80.5 compared with the previous 81.3. Only the balsams changed in price, balsam copaiba declining four cents to 30 and balsam Peru declining from $1.10 to 95 cents. Pending legislation in Washington drew attention to menthol. A bill was introduced there to increase the duty on natural menthol. Should this be enacted into law the prospects for synthetic menthol would be greatly stimulated.

15 Botanicals—Weighted Price Index. 1926 = 100.



Botanicals declined, the index falling below 100 to reach 99.5. Buchu was one cent lower at 54 cents; digitalis jumped from 24 to 34 cents; ergot dropped from $1.90 to $1.60. The decline in ergot was a reflection of the poor consumer request rather than any change in the statistical position of this item. Replacement stocks were difficult to obtain and the situation is not likely to improve until Spain can again resume normal production.

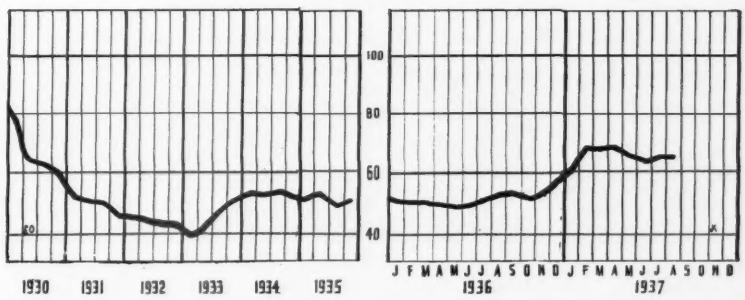
50 Raw Materials—Weighted Price Index. 1926 = 100.



The index of 50 commodity prices was slightly lower at 73.6 for August, compared with 74.3 for July 1937. The outstanding development during the month as affecting raw materials from France was the sharp decline in the value of the franc. While it was possible early in the month for importers to buy French products advantageously it was the general opinion in the trade that price advances would be instituted to offset the devalued currency.

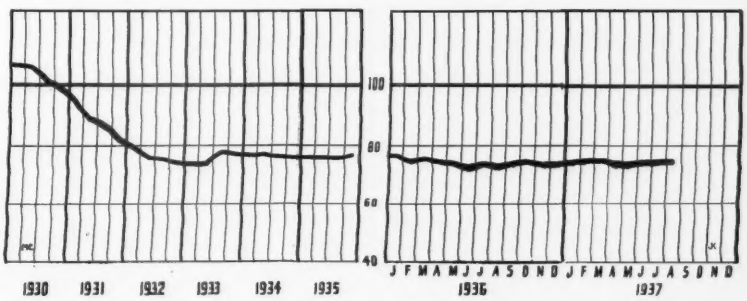
The essential oil index also declined, from 65.6 in July to 65.2 in August. Citronella was one-half cent higher at 46 cents; clove oil declined from $1.35 to $1.15, peppermint oil increased from $2.45 to $2.50. Conflicting reports were received regarding the prospects for the new peppermint crop. Some stated quite definitely that excessive rains damaged the crop to the extent that a much smaller yield is expected while others reported a normal production as likely. At any rate prices in the country were very firm.

15 Essential Oils—Weighted Price Index. 1926 = 100.



Medicinal chemicals, with only mercury metal changing price, averaged an infinitesimal decline from 73.5 to 73.4. Mercury declined from $98.00 to $94.00 a flask. The market as a whole was seasonally quiet but the price structure was firm which indicated a basic condition that would probably carry prices higher on resumption of a more normal consuming market.

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



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MENTHOL

The market for natural menthol continued without special feature during the past month. There were no changes in spot quotations the range being continued at from $3.20 to $3.30 per pound.

Manufacturing consumers showed an increased interest in the synthetic material, it was said. One jobber is reported to have stocked up on synthetic menthol and was offering it rather widely at attractive prices.

Proposals for a tax on imported menthol were given a hearing on July 22 by a subcommittee of the house ways and means committee headed by Representative Thomas H. Cullen of New York.

Two bills were before the committee, H. R. 7906, introduced by Representative Harry R. Sheppard of California, and H. R. 7052, introduced by Representative Frank W. Boykin of Alabama. Both bills would impose a tax of $1.00 per pound on imported menthol, and the Boykin bill would also impose a tax of 10c per pound on imported natural crude camphor, natural refined camphor, and synthetic camphor.

The Sheppard bill was briefly endorsed by several congressmen from Florida and California and also by Chester Gray, representative of the American Farm Bureau Federation, on the ground that it would assist the development of the production of mint in this country, which is being attempted in Florida and California.

CHAMOMILES

A much higher spot market prevailed on chamomile flowers. Hungarian flowers were advanced from 19c to a range of from 33c to 35c per pound.

It is reported that the heavy rains experienced during the first four months of the year made it impossible to get on the land to carry out the usual hoeing, and it was found necessary to put on double the amount of labor in June to bring the fields up to the usual standard. The plants were backward, and it almost looked as if the crop was going to be under the average until the early part of July.

While it now appears that a normal production of chamomile flowers will be harvested the increased cost to produce has raised the replacement market considerably.

TANSY

The crop prospect for tansy was reported poor and sellers were not only reserved in offerings but they advanced spot quotations rather sharply to the basis of from $4.25 to $4.50 per pound. This advance was made necessary in order to protect stocks in hand.

GUM TRAGACANTH

No weakness prevailed in the market for gum tragacanth. Prices on spot were well held, especially on top quality gum. The range for number 1 gum was from $2.75 to $3.00 per pound while number 2 was offered at from $2.40 to $2.65.

It is reported that the Persian crop will be late this year and that the Government will ask somewhat higher prices for shipment than now prevail. The situation in the primary market is well under control of and influenced by the Persian Government. It is now stated that the Government insists shipments be made from the interior along transportation lines they are interested in. These are round about routes so that shippers will not guarantee delivery dates, and as a consequence it is reported that delivery of new crop will be as late as November, December.

Another strengthening influence as a whole is the situation prevailing in Turkish gum tragacanth. The trade reports that total stocks on hand in the entire country at present amount to about 400 bags, of which about 250 are in exporters' hands, the balance being held by growers.

The Government, of Turkey, it is said, is also considering methods of standardizing various Turkish export commodities, including gum tragacanth and eventually this may result in a condition similar to that prevailing in Persia.

ERGOT

Although some price softness was noted for ergot in the spot market the fact of the matter was that the situation in both Spain and Portugal was far too uncertain to make the recession a legitimate one. The price range in New York was from $1.60 to $1.75 per pound.

The difficulties encountered on the German market for ergot in 1936 remained unchanged during the first six months of 1937, chiefly owing to the situation in Spain which formerly was Germany's principal supplier. The market has been dull throughout the past six months. Virtually all of the shipments made from Hamburg to the United States have consisted of Portuguese ergot, according to local exporters, only slight quantities, if any at all, of Spanish goods having been sold. All ergot purchased by Germany from Spain is said to be for home consumption with the possible exception of small quantities received for transshipment.

SULFANILAMIDE

Manufacturers of sulfanilamide announce a reduction in the price of this item to the following basis: 100 lb. drums $3.40 per pound; 25 lb. drums $3.55 per lb. f.o.b. New York.

ROSE OIL

Considerable effort has been made to decrease the production of Bulgarian rose oil because of rather large carryover stocks and for economic reasons. The government has endeavored to encourage other farm crops which grow well in the valley of roses. Pyrethrum flowers have been successfully grown and in 1936 it seemed that the new policy would meet with success as production declined.

It is now reported that notwithstanding restrictions on rose acreage in order to bring production of oil in line with world requirements, the output of flowers and oil during this year will be larger than in 1936.

The area planted to rose during the season just closed was recorded at 15,250 acres or 590 acres less than in 1936, but due to favorable weather conditions the yield of flowers increased from 21 to 25 million pounds and the yield of oil from 4,870 to 6,270 pounds. During the current season 4,180 pounds were distilled by cooperatives, under control of Agricultural and Cooperative Bank of Bulgaria and 2,009 pounds by private manufacturers.

A new law controlling Bulgaria's rose oil trade was enacted in April. The new law contains provisions for further guaranteeing the purity of distillation and the elimination of frauds and adulterations and keeps the control of the industry in the hands of the Agricultural and Cooperative Bank. The new legislation permits the union of private distillers to participate in the business but requires them to fill half their export orders from stocks of the Bank which are reported to be in the neighborhood of 8,800 pounds.

Exports of Bulgarian rose oil during the first half of the current year aggregated 1,540 pounds against 977 for the first six months of 1936.

GUM BENZOIN

Shipments of gum benzoin are having difficulty in passing tests for purity. For the week ending July 21, 5 cases were withheld and for the week ending July 7, 208 cases were detained because of the USP test for rosin positive.

It is said that this material is not likely to be released until such time as a change shall be made in the test requirements of the U. S. Pharmacopoeia. Practically every lot fails to meet the prescribed test because it shows an alleged presence of rosin although some were of the opinion that the material in question is not adulterated with rosin but that the test specified in the pharmacopoeia is at fault.

The difficulty in affecting release, however, has affected the spot market price which during the period under review showed an advance of 7c per pound in the price of Sumatra material which is now quoted at from 22c to 23c per pound. Siam benzoin gum advanced 35c per pound to be quoted at from $1.40 to $1.65.

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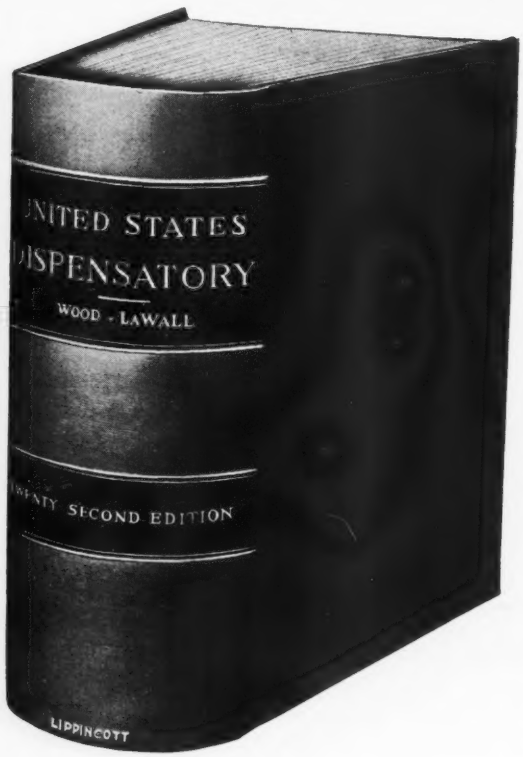

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IODINE

Representatives of Chile and Japan are stated to have reached an agreement regulating world distribution of iodine which was ratified on June 10, according to reports reaching the Commerce Department's Chemical Division from Tokyo. Details of the cartel are not available but it is understood that Chile agrees not to sell iodine in the Japanese Empire, and Japan is alloted an export quota of 70 metric tons per annum, which is subject to revision every three months in accordance with fluctuations in demand, the report states.

World production and trade in iodine have undergone many changes in recent years with the United States, formerly dependent upon a foreign monopoly for its supplies, emerging as the world's second largest producer, according to the Department of Commerce.

At present the United States, which consumes around 30 per cent. of the total world output of iodine, is supplying a fair share of its requirements from domestic sources, statistics show. Sales of American produced iodine aggregated 233,925 pounds valued at $212,000 in 1936, according to the Bureau of Mines, which compares with sales totaling 245,700 pounds in 1935, and an annual average of 276,500 pounds during the four years ended 1935—In 1933 sales reached an all-time peak of 401,500 pounds.

It is not expected that the ways and means committee will take action on these measures at this session of Congress.

KAMALA

According to reports from India stocks of kamala are comparatively small and replacements difficult to obtain. Prices were strongly maintained in the primary market and the tendency was upward. On spot this condition was reflected by an advance of 1c per pound with the range of prices now on the basis of from 38c to 40c per pound.

No information is available as to the stocks of kamala as the forest department does not hold stocks but sells by auction the right of collecting this and other minor forest products. Contractors who collect the kamala powder in the forest generally sell it to middlemen and finally it reaches the exporters.

The only information available in Bombay concerning the production and available supply of kamala powder consists of the estimates of firms engaged in the trade. Representatives of different firms estimate that from 70 to 100 long tons may be available in all of India per year, of which 30 per cent. is consumed locally and the rest exported. The United States, said to be the principal buyer, takes approximately 80 per cent. of the total exports.

ALCOHOL

In reporting the Jones Sugar Bill, H. R. 7667, which provides quotas, processing taxes and benefit payments for the production and sale of edible sugar from sugar cane or sugar beets, the House Agriculture Committee added a provision imposing more than a 3c tax on waste inedible blackstrap molasses used in the manufacture of industrial alcohol.

About 190,000,000 gallons of blackstrap molasses a year are used in the manufacture of industrial alcohol. This produces, on the basis of 2½ gallons of such molasses to a gallon of alcohol, between 75,000,000 and 80,000,000 gallons of industrial alcohol annually. In addition, there is synthetically produced each year about 43,000,000 gallons of industrial alcohol.

It is stated that an increase in the cost of waste blackstrap molasses will not mean the use of a single bushel of corn, but will mean merely an increase in the synthetic production of industrial alcohol. Taking both synthetic ethyl and methyl alcohol together, it is said that production of synthetic alcohol has increased from about 11,000,000 in 1930 to about 43,000,000 in 1936.

It is further stated that any increase in the cost of waste blackstrap molasses will simply drive manufacturers to synthetic production, and will further result in an increase in the cost of industrial alcohol to the many industries now depending on this raw material.

OLIVE OIL

With spot stocks of olive oil small, and shipment offerings light, the market retained a firm tone, quotations still being largely nominal.

The world production of olive oil was reduced nearly 25 per cent. last year, and a reduction of at least 33 per cent. in the supply available for the 1937 marketing year as compared with 1936, was estimated. Prevailing high prices are expected to continue for some time—at least until exports from Spain become normal.

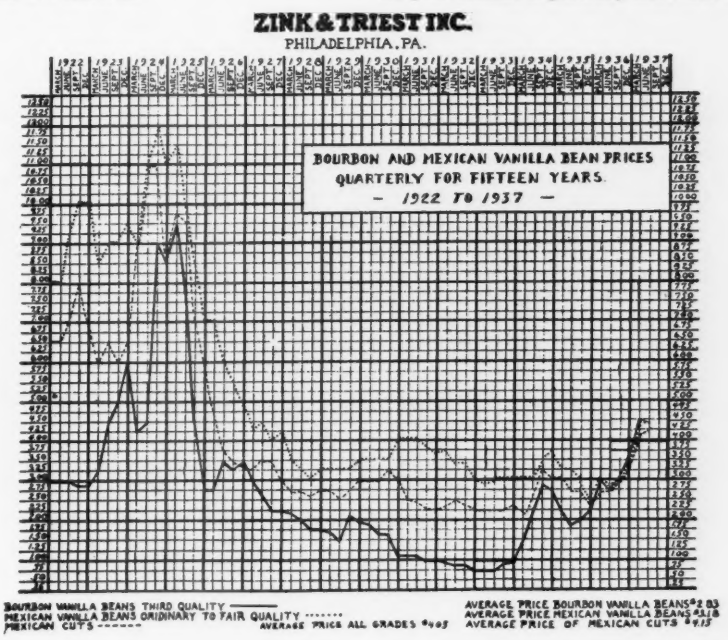
VANILLA BEANS

Bourbon vanilla beans showed a decline of 40c per pound in the spot market during the period under review. The new price range is now from $4.25 to $4.50 per pound.

This lower spot price does not reflect on the statistical position of this grade of vanilla either here or in the primary market. It is, rather, a reflection of the unsettled financial conditions in France and the sharply lower value of the franc.

There was no price or other material change in the situation regarding Mexican vanilla. Whole beans continued to sell at from $4.75 to $5.50 per pound and the cuts at from $4.50 to $4.75.

Below is an interesting graph showing vanilla bean prices quarterly for fifteen years, from 1922 to 1937. It is of interest to note that there does not appear to be any seasonal period for advances or declines in price. In fact, it seems that prices are no more apt to decline during January, February and March, when the bulk of the Bourbon crop arrives in France, than they are any other time of year, no doubt because at this period of the year demand is generally more active.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VISCO GUMS
for Wave Set Lotions

SULPHONATED OILS
for Soapless Shampoos